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ORIGINAL COMMUNICATIONS.

ART. I. *The Poetry of Architecture.* By KATA PHUSIN.

No. 3. THE VILLA.

I. *The Italian Villa.* (Concluded.)

WE do not think there is any truth in the aphorism, now so frequently advanced in England, that the adaptation of shelter to the corporal comfort of the human race is the original and true end of the art of architecture, properly so called: for, were such the case, he would be the most distinguished architect who was best acquainted with the properties of cement, with the nature of stone, and the various durability of wood. That such knowledge is necessary to the perfect architect we do not deny; but it is no more the end and purpose of his application, than a knowledge of the alphabet is the object of the refined scholar, or of rhythm of the inspired poet. For, supposing that we were for a moment to consider that we built a house *merely* to be lived in, and that the whole bent of our invention, in raising the edifice, is to be directed to the provision of comfort for the life to be spent therein; supposing that we build it with the most perfect dryness and coolness of cellar, the most luxurious appurtenances of pantry; that we build our walls with the most compacted strength of material, the most studied economy of space; that we leave not a chink in the floor for a breath of wind to pass through, not a hinge in the door, which, by any possible exertion of its irritable muscles, could creak; that we elevate our chambers into exquisite coolness, furnish them with every ministry to luxury of rest, and finish them with every attention to the maintenance of general health, as well as the prevention of present inconvenience: to do all this, we must be possessed of great knowledge and various skill; let this knowledge and skill be applied with the greatest energy, and what have they done? Exactly as much as brute animals can do, by mere instinct; nothing more than bees and beavers, moles and magpies, ants and earwigs, do every day of their lives, without the slightest effort of reason; we have made ourselves superior as architects to the most degraded animation of

the universe, only insomuch as we have lavished the highest efforts of intellect, to do what they have done with the most limited sensations that can constitute life. The mere preparation of convenience, therefore, is not architecture in which man can take pride, or ought to take delight; but the high and ennobling art of architecture is, that of giving to buildings, whose parts are determined by necessity, such forms and colours as shall delight the mind, by preparing it for the operations to which it is to be subjected in the building: and thus, as it is altogether to the mind that the work of the architect is addressed, it is not as a part of his art, but as a limitation of its extent, that he must be acquainted with the minor principles of the economy of domestic erections. For this reason, though we shall notice every class of edifice, it does not come within our proposed plan, to enter into any detailed consideration of the inferior buildings of each class, which afford no scope for the play of the imagination by their nature or size; but we shall generally select the most perfect and beautiful examples, as those in which alone the architect has the power of fulfilling the high purposes of his art. In the villa, however, some exception must be made, inasmuch as it will be useful, and, perhaps, interesting, to arrive at some fixed conclusions respecting the modern buildings, improperly called villas, raised by moderate wealth, and of limited size, in which the architect is compelled to produce his effect without extent or decoration. The principles which we have hitherto arrived at, deduced as they are from edifices of the noblest character, will be but of little use to a country gentleman, about to insinuate himself and his habitation into a quiet corner of our lovely country; and, therefore, we must glance at the more humble homes of the Italian, preparatory to the consideration of what will best suit our own less elevated scenery.

First, then, we lose the terraced approach, or, at least, its size and splendour, as these require great wealth to erect them, and perpetual expense to preserve them. For the chain of terraces we find substituted a simple garden, somewhat formally laid out; but redeemed from the charge of meanness by the nobility and size attained by most of its trees; the line of immense cypresses which generally surrounds it in part, and the luxuriance of the vegetation of its flowering shrubs. It has frequently a large entrance gate, well designed, but carelessly executed; sometimes singularly adorned with fragments of exquisite ancient sculpture, regularly introduced, which the spectator partly laments, as preserved in a mode so incongruous with their ancient meaning, and partly rejoices over, as preserved at all. The grottoes of the superior garden are here replaced by light ranges of arched summerhouses, designed in stucco,

and occasionally adorned in their interior with fresco paintings of considerable brightness and beauty.

All this, however, has very little effect in introducing the eye to the villa itself, owing to the general want of inequality of level in the ground, so that the main building becomes an independent feature, instead of forming the apex of a mass of various architecture. Consequently, the weight of form which in the former case it might, and even ought to, possess, would here be cumbrous, ugly, and improper; and accordingly, we find it got rid of. This is done, first by the addition of the square tower, a feature which is not allowed to break in upon the symmetry of buildings of high architectural pretensions; but is immediately introduced, whenever less richness of detail, or variety of approach, demands or admits of irregularity of form. It is a constant and most important feature in Italian landscape: sometimes high and apparently detached, as when it belongs to sacred edifices; sometimes low and strong, united with the mass of the fortress, or varying the form of the villa. It is always simple in its design, flat-roofed, its corners being turned by very slightly projecting pilasters, which are carried up the whole height of the tower, whatever it may be, without any regard to proportion, terminating in two arches on each side, in the villa most frequently filled up, though their curve is still distinguished by darker tint and slight relief. Two black holes on each side, near the top, are very often the only entrances by which light or sun can penetrate. These are seldom actually large, always proportionably small, and destitute of ornament or relief. The forms of the villas to which these towers are attached are straggling, and varied by many crossing masses; but the great principle of simplicity is always kept in view, every thing is square and terminated by parallel lines; no tall chimneys, no conical roofs, no fantastic ornaments are ever admitted: the arch alone is allowed to relieve the stiffness of the general effect. This is introduced frequently, but not in the windows, which are either squares or double squares, at great distances from each other, set deeply into the walls, and only adorned with broad flat borders,

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as in *fig. 116*. Where more light is required they are set moderately close, and protected by an outer line of arches, deep enough to keep the noonday sun from entering the rooms. These lines of arches cast soft shadows along the bright fronts, and are otherwise of great value. Their effect is pretty well seen in

*fig. 117.*; a piece which, while it has no distinguished beauty, is yet pleasing by its entire simplicity; and peculiarly so, when we know that simplicity to have been chosen (some say, built) for its last and lonely habitation, by a mind of softest passion as of

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purest thought; and to have sheltered its silent old age among the blue and quiet hills, till it passed away like a deep lost melody from the earth, leaving a light of peace about the grey tomb at which the steps of those who pass by always falter, and around this deserted, and decaying, and calm habitation of the thoughts of the departed; Petrarch's, at Arquà. A more familiar instance of the application of these arches is the villa of Mecenæs at Tivoli, though it is improperly styled a villa, being pretty well known to have been nothing but stables.

The buttress is the only remaining point worthy of notice. It prevails to a considerable extent among the villas of the south, being always broad and tall, and occasionally so frequent as to give the building, viewed laterally, a pyramidal and cumbrous effect. The most usual form is that of a simple sloped mass, terminating in the wall, without the slightest finishing, and rising at an angle of about  $84^{\circ}$ . Sometimes it is perpendicular, sloped at the top into the wall; but it never has steps of increasing projection as it goes down. By observing the occurrence of these buttresses, an architect, who knew nothing of geology, might accurately determine the points of most energetic volcanic action in Italy; for their use is to protect the building from the injuries of earthquakes, the Italian having far too much good taste to use them, except in cases of extreme necessity. Thus, they are never found in North Italy, even in the fortresses. They begin to occur among the Apennines, south of Florence; they become more and more frequent and massy towards Rome; in the neighbourhood of Naples they are huge and multitudinous, even the walls themselves being sometimes sloped; and the same state of things continues as we go south, on the coasts of Calabria and Sicily. Now, these buttresses present one of the most extraordinary and striking instances of the beauty of adaptation of style to locality and peculiarity of circumstance, that can be met with in the whole range of architectural investigation. Taken in the abstract, they are utterly detestable, formal, clumsy, and apparently unnecessary. Their builder thinks so himself: he hates them as things to be looked at, though he erects them as things to be depended upon. He has no idea that there is any propriety in their presence, though he knows perfectly well that there is a great deal of necessity; and, therefore, he builds them. Where? On rocks whose sides are one mass of buttresses, of precisely the same form; on rocks which are cut and cloven by basalt and lava dikes of every size, and which, being themselves secondary, wear away gradually by exposure to the atmosphere, leaving the intersecting dikes standing out in solid and vertical walls, from the faces of their precipices. The eye passes over heaps of scoriae and sloping banks of ashes, over the huge ruins of more ancient

masses, till it trembles for the fate of the crags still standing round; but it finds them ribbed with basalt like bones, buttresses with a thousand lava walls, propped upon pedestals and pyramids of iron, which the pant and the pulse of the earthquake itself can scarcely move, for they are its own work; it climbs up to their summits, and there it finds the work of man; but it is no puny domicile, no eggshell imagination, it is in a continuation of the mountain itself, inclined at the same slope, ribbed in the same manner, protected by the same means against the same danger; not, indeed, filling the eye with delight, but, which is of more importance, freeing it from fear, and beautifully corresponding with the prevalent lines around it, which a less massive form would have rendered, in some cases, particularly about Etna, even ghastly. Even in the lovely and luxuriant views from Capo di Monte, and the heights to the east of Naples, the spectator looks over a series of volcanic eminences, generally, indeed, covered with rich verdure, but starting out here and there in grey and worn walls, fixed at a regular slope, and breaking away into masses more and more rugged towards Vesuvius, till the eye gets thoroughly habituated to their fortress-like outlines. Throughout the whole of this broken country, and, on the summits of these volcanic cones, rise innumerable villas; but they do not offend us, as we should have expected, by their attestation of cheerfulness of life amidst the wrecks left by destructive operation, nor hurt the eye by non-assimilation with the immediate features of the landscape: but they seem to rise prepared and adapted for resistance to, and endurance of, the circumstances of their position; to be inhabited by beings of energy and force sufficient to decree and to carry on a steady struggle with opposing elements, and of taste and feeling sufficient to proportion the form of the walls of even to the clefts in the flanks of the volcano, and to prevent the exultation and the lightness of transitory life from startling, like a mockery, the eternal remains of disguised desolation.

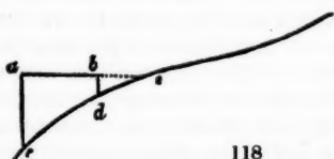
We have always considered these circumstances as most remarkable proofs of the perfect dependence of architecture on its situation, and of the utter impossibility of judging of the beauty of any building in the abstract: and we would also lay much stress upon them, as showing with what boldness the designer may introduce into his building, undisguised, such parts as local circumstances render desirable; for there will invariably be something in the nature of that which causes their necessity, which will endow them with beauty.

These, then, are the principal features of the Italian villa, modifications of which, of course more or less dignified in size, material, or decoration, in proportion to the power and possessions of their proprietor, may be considered as composing every

building of that class in Italy. A few remarks on their general effect will enable us to conclude the subject.

We have been so long accustomed to see the horizontal lines and simple forms which, as we have observed, still prevail among the Ausonian villas, used with the greatest dexterity, and the noblest effect, in the compositions of Claude, Salvator, and Poussin; and so habituated to consider those compositions as perfect models of the beautiful, as well as the pure in taste; that it is difficult to divest ourselves of prejudice, in the contemplation of the sources from which those masters received their education, their feeling, and their subjects. We would hope, however, and we think it may be proved, that in this case principle assists and encourages prejudice. First, referring only to the gratification afforded to the eye, which we know to depend upon fixed mathematical principles, though those principles are not always developed, it is to be observed, that country is always most beautiful when it is made up of curves, and that one of the chief characters of Ausonian landscape is, the perfection of its curvatures, induced by the gradual undulation of promontories into the plains. In suiting architecture to such a country, that building which least interrupts the curve on which it is placed will be felt to be most delightful to the eye.

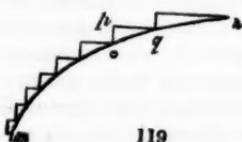
Let us take then the simple form  $a b c d$ , interrupting the curve  $c e$ . Now, the eye will always continue the principal lines of such an object for itself, until they cut the main curve; that is, it will carry on  $a b$



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to  $e$ , and the total effect of the interruption will be that of the form  $c d e$ . Had the line  $b d$  been nearer  $a c$ , the effect would have been just the same. Now, every curve may be considered as composed of an infinite number of lines at right angles to each other, as  $m n$  is made up of  $o p, p q, \&c.$  (fig. 119.), whose ratio to each other varies with the direction of the curve. Then, if the

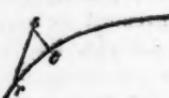
right lines which form the curve at  $c$  (fig. 118.) be increased, we have the figure  $c d e$ , that is, the apparent interruption of the curve is an increased part of the curve itself. To the mathematical reader we can explain our meaning more



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clearly, by pointing out that, taking  $c$  for our origin, we have  $a c, a e$ , for the coordinates of  $e$ , and that, therefore, their ratio is the equation to the curve. Whence it appears, that, when any curve is broken in upon by a building composed of simple

vertical and horizontal lines, the eye is furnished, by the interruption, with the equation to that part of the curve which is interrupted. If, instead of square forms, we take obliquity, as



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*rst* (fig. 120.), we have one line, *s t*, an absolute break, and the other, *r s*, in false proportion. If we take another curve, we have an infinite number of lines, only two of which are where they ought to be. And

this is the true reason for the constant introduction of features which appear to be somewhat formal, into the most perfect imaginations of the old masters, and the true cause of the extreme beauty of the groups formed by Italian villages in general.

Thus much for the mere effect on the eye. Of correspondence with national character, we have shown that we must not be disappointed, if we find little in the villa. The unfrequency of windows in the body of the building is partly attributed to the climate; but the total exclusion of light from some parts, as the base of the central tower, carries our thoughts back to the ancient system of Italian life, when every man's home had its dark, secret places, the abodes of his worst passions; whose shadows were alone intrusted with the motion of his thoughts; whose walls became the whitened sepulchres of crime; whose echoes were never stirred except by such words as they dared not repeat\*; from which the rod of power, or the dagger of passion, came forth invisible; before whose stillness princes grew pale, as their fates were prophesied or fulfilled by the horoscope or the hemlock; and nations, as the whisper of anarchy or of heresy was avenged by the opening of the low doors, through which those who entered returned not.

The mind of the Italian, sweet and smiling in its operations, deep and silent in its emotions, was thus, in some degree, typified by those abodes into which he was wont to retire from the tumult and wrath of life, to cherish or to gratify the passions which its struggles had excited; abodes which now gleam brightly and purely among the azure mountains, and by the sapphire sea, but whose stones are dropped with blood; whose vaults are black with the memory of guilt and grief unpunished and unavenged, and by whose walls the traveller hastens fearfully, when the sun has set, lest he should hear, awakening again through the horror of their chambers, the faint wail of the children of Ugolino, the ominous alarm of Bonatti, or the long low cry of her who perished at Coll-Alto.

*Oxford, July, 1838.*

\* Shelley has caught the feeling finely:—"The house is penetrated to its corners by the peeping insolence of the day. When the time comes the crickets shall not see me." — *Cenci.*

**ART. II. On the Choice of a Situation for a Church; and on the Laying out and Planting of the Churchyard.** By the CONDUCTOR.

THE public attention has been so much occupied with churches, that churchyards seem to have been lost sight of; for, though a great number of new churches have been erected within the last ten years, many of them of greatly improved architecture and interior arrangements, yet we have scarcely heard of an instance, in which any thing has been done in the way of laying out the churchyard agreeably to some fixed principles, and conducting the interments afterwards according to some system. In this view of the matter, for want of something better we submit the following paragraphs from the *Suburban Gardener*, into which work they were introduced incidentally, when treating of parsonage residences; a characteristic of parsonages being their proximity to, or connexion with, a church and churchyard.

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**CHURCHYARDS**, like every description of yard or garden, ought to be laid out, planted, and managed, with reference to their use; and the scenery produced should, in its expression and general effect, indicate what that use is, or, at all events, be in accordance with it. A churchyard ought not to be laid out so as to be mistaken for a pleasure-ground, a shrubbery, or a flower-garden; neither, on the other hand, ought it to be left in a state of utter neglect, without regular walks, and overgrown with weeds and rank grass. The use of the churchyard is as a place of burial, as an enclosure and protection to the church, as a place sacred to the memory of the dead, as a place of weekly meeting for solemn purposes, and as an approach to the church. All its uses are of a serious and important nature; and it is therefore to be considered as a grave and solemn scene. Now, the question to be solved in laying out a churchyard is, what treatment of the trees, the surface of the ground, the grass, walks, graves, gravestones, and tombs, will be most conducive to solemnity of effect. The expression of the exterior of the church is grave and solemn, by its long-established association with our religious feelings; and it therefore may be considered as having a similar influence on the scenery around. The feeling of solemnity is one more of a passive, than of an active, nature: it neither needs to be much cultivated, nor much exercise of the imagination. Strong contrasts are not required to excite this feeling, nor varied and intricate scenery to prolong it. It has its origin in the uses of the place, and will only be interfered with, or weakened, by the introduction of such objects as interfere with these uses. Simplicity, therefore, ought to be a governing principle in every thing relating to church-

yards; and, as the appearance of neglect or slovenliness always implies want of respect, order and neatness are next in importance. By order, we mean the avoiding of every thing like confusion in the disposition of the trees, or the placing of the tombs and gravestones; and, by neatness, we allude more particularly to keeping the turf short and smooth, the walks firm, even, and free from weeds, the gravestones upright, and the tombs in a state of repair.

The character of a churchyard, as a place of burial, will always be more or less influenced by the character and manners of the people to whom it belongs. In Britain, churchyards have much less care bestowed upon them than in Central Germany, and in some parts of France, Belgium, and Holland. The sentiment of respect to the memory of deceased persons in these countries is shown by planting flowers over the graves, and frequently cultivating them there for some years afterwards. Among the Moravians, on the Continent, the churchyard is sometimes laid out in compartments, with walks between, like a garden; and the compartments are kept dug, and planted with flowers and ornamental plants. Two powerful arguments are advanced in favour of this practice: the first is, that a churchyard so managed costs less than if it were in turf, and kept short by mowing; the second, that the surface of the ground has always the same appearance, there being no gravestones or tombs, and the ground being left level, and replanted with the plants which stood on it before, after every interment; these having been carefully taken up, and placed on one side, before the grave was dug. It is evident that this mode of treating a churchyard, however consonant it may be to the ideas of those who adopt it, is not in accordance with our desiderata. It does not indicate its use, as it has neither raised graves, tombs, gravestones, nor any other appearance of its being a place of burial; and it is not calculated to excite solemn emotions, as it has all the gaiety of a flower-garden.

In Britain, respect for the dead is not generally shown by the introduction of flowers over their graves; but the practice prevails in some places throughout the country, more especially in Wales, and is not unfrequent in the metropolitan and other cemeteries. Perhaps it ought to be commended and encouraged, as the frequent recollection of deceased friends has a tendency to sober the mind and cultivate the affections of the living. In every part of Germany, where the inhabitants are in the habit of cultivating flowers on the graves of their friends, or even of visiting these graves annually on a certain day and decorating them, the inhabitants are a reflective, and very humane and amiable, people; for example, at Munich. The introduction of flowers in churchyards, therefore, where they are planted over

the graves by the relations of the deceased, is a very different thing from their introduction in the margins of plantations of trees and shrubs, as is done in some of our public cemeteries, in imitation of shrubberies; to the utter neglect, as we think, of appropriate character and expression. Bearing in mind, therefore, the three principles of simplicity, order, and neatness, as guides in laying out churchyards, we shall next proceed with the details.

*Situation and Soil.* It is almost unnecessary to observe that a country church ought either to be built adjoining the village for which it is intended, or, if it is to serve two or three villages, in a situation central to them. The surface of the ground ought to be an elevated knoll, in order that the church and the spire may be seen on every side, and, if possible, throughout the whole extent of the parish. The knoll should be sufficiently large to admit of its summit being reduced to a level, or, at all events, to a nearly level, platform, or piece of table land, about the size of the churchyard; a level surface being more convenient for the purpose of interment than a sloping one, for a reason that will be given hereafter. Besides which, the ground plan of a church being a parallelogram, to see it rising out of a round knoll would be contrary to every idea of a suitable and secure foundation. Where there is no want of room, or not many burials likely to take place, the surface of a churchyard, instead of being level, may be quite irregular; but, in this case, the places for graves, and the walks of communication to these places, must be rendered easily accessible, and, to a certain extent, level. This can always be effected by laying the ground out in terraces: a mode of disposition which may be as advantageously adopted in churchyard gardening, as it is in gardening as an art of culture. The soil should, if possible, be sandy or gravelly, as being most suitable for promoting animal decomposition; but any soil may be rendered fit for this purpose by deep trenching, and the addition of sand, gravel, and lime rubbish, so as to form an artificial stratum as deep as it is intended to dig the graves. The worst of all soils for a churchyard is a stiff wet clay; which, by its compactness and retention of water, prevents the natural decomposition of the body, and has even been known to change it into an adipose substance.

*The Size of the Church, and the Extent of the Churchyard,* will depend on the population for whose service they are intended, and on the probable slowness or rapidity of its increase. The form of the church may be considered as fixed, by precedent and immemorial usage, in that of a parallelogram, with or without projections at the sides, so as to give it the form of a Latin cross; and having a tower, steeple, or cupola, at one end, for the church bells, and a clock. There are some examples, however, of

churches having been made semicircular, circular, or polygonal, in the plan, so as to suit them to particular situations.

The form of the churchyard is not fixed, like that of the church, but will naturally be determined jointly by the form and position of the church, and the form of the ground which surrounds it. If the ground be level, or nearly so, then the outline of the churchyard may coincide with that of the church; so as also to form a large parallelogram, in the direction of east and west, that being the prescribed bearing of all Christian churches. If the church be situated on the summit of a conspicuous conical hill, or dome-like knoll, then the outline of the churchyard will be determined solely by the ground, and may be circular, oval, or roundish; and we may here observe, that, when cases of this kind occur, as they are not very common, we think the ground plan of the church ought to be round, or roundish, also. In general, the position and form of the churchyard ought to be such as will have a good effect from all the different parts of the surrounding parish from which it is seen; while, at the same time, it should look well from its immediate vicinity, and also from the different doors and sides of the church.

*The Site of the Church* should be central to the natural shape of the ground which is to constitute the churchyard, when that shape is in any way remarkable; but, where the surface of the ground is level, the church may be placed nearer one end of the parallelogram, or other-shaped piece of ground, which forms the churchyard, than another; or even nearest to one side, provided this is not attended with injustice to the parishioners. In general, the exact position of the church within the churchyard, when not determined by natural circumstances, ought to be regulated by the number of sides on which it is approached. If the parish lie equally round the church on every side, there will be at least four gates to the churchyard, corresponding with the four cardinal points; and in that case the church ought to be in the centre of the churchyard: but, if there be only a gate at one end, or if there should be several gates, but all nearer one end than the other, the church ought to be placed accordingly.

*The Ground Plan of the Church*, its exact position in the churchyard, the boundary lines of the latter, and the different churchyard doors or gates being fixed on, before anything farther is done, the church ought to be built; and we shall suppose that its elevation is so designed as to appear to rise from a platform of gravel or pavement, of from 10 ft. to 20 ft. wide, according to the size of the church; this platform, or terrace, being supported by a sloping bank of turf, at an angle of  $45^{\circ}$ , and furnished with flights of steps opposite each of the churchyard gates. Underneath the surrounding platform, there ought to be a deep barrel-

drain, or box-drain, for receiving the rain-water from the roof of the church, and thus keeping the foundations dry ; and from this drain there ought to proceed others of the same kind, under each of the walks which lead from the church platform to the boundary wall. These last, besides carrying away the water collected in the drain which surrounds the church, will dry the subsoil of the churchyard generally ; and receive the surface water from the walks, through gratings placed at regular distances.

*The Boundary Fence* of the churchyard should be such as to exclude every kind of domestic quadruped ; but it is not, in general, necessary that it should be so high as to prove a barrier to man, because it may fairly be supposed that most persons will reverence the interior more or less, and that those who are without this reverence will have, in general, nothing to gain by breaking into such a scene. We here exclude altogether the consideration of body-stealing, which can only be practised by a particular set ; who, in the country at least, are rarely to be met with. As swine and rabbits are particularly offensive in churchyards, especially where the soil is sandy, the boundary fence should either be a low wall of 3 ft., surmounted by a holly or thorn hedge ; or a wall of 6 or 7 feet in height, without any hedge. In the latter case, the inner face of the wall may be planted with common ivy. Where the churchyard is to be united with the adjoining lawn, garden, or pleasure-ground, of the parsonage, the boundary fence on the side next the residence may be an open iron railing ; and, where it is to be united with a pleasure-ground on a large scale, or a park, it may either be surrounded by an open iron railing, or by a deep and wide sunk fence. If a hedge is in any case determined on as the boundary to a churchyard, it ought to be kept much broader at bottom than at top, in order that it may grow quite thick and close there ; and the only plants fit for such a hedge are the common white thorn and the holly.

*The Walks of a Churchyard* are of two kinds : those for proceeding from the different gates in the boundary fence to the church doors, for persons going to, or returning from, the church ; and those which make the circuit of the churchyard, for the more conveniently viewing the tombs and graves, and for conducting funerals. The walks proceeding from the entrance gates in the boundary fence to the church doors should be always in straight lines, and of a width proportionate to the size of the church and churchyard, but never narrower than 6 ft. ; because this is the least width which will allow two persons abreast, carrying a coffin between them, to pass solemnly along : the width, indeed, should be greater rather than less, because nothing can be more indecorous than to see a funeral procession crowded

and huddled together for want of room. In every case, we would, if possible, place the entrance gates, so that the walk from them to the church, whether to its sides or its ends, might always meet the building at a right angle.

With respect to the walk round the churchyard, it should in every case, and whether the churchyard were small or large, be at a distance of at least 10 ft. from the boundary wall, in order to leave a border sufficiently broad for a range of graves to be placed at right angles to the wall. This walk should be of the same breadth as the others; and, like them, in no case less than 6 ft., for the reasons already mentioned. In most churchyards this boundary walk, and the cross walks necessary as approaches to the church, will be sufficient; but, where this is not the case, cross walks from the boundary walk to the terrace round the church may be added; or a second surrounding walk may be formed, half-way between the terrace or walk round the church, and the circumferential walk.

*The Walks of old Churchyards.* The preceding remarks constitute our *beau ideal* of churchyard walks, supposing that a church were to be built, and the walks to be laid out on a flat surface; but, as this is not a case of every-day occurrence, the next point is to show what can be done in the case of old churches and churchyards, having, perhaps, only one gate, and one walk from that gate to the church; and where the churchyard is so thickly studded with graves and gravestones as scarcely to leave room for any additional walk, and, at all events, not for a straight one. The mode in which we should proceed in this case would be, to lay out the requisite walks on the same general principles as in a new churchyard, but to make them of double or treble the usual breadth, so that where a tombstone occurred in the middle, or in any part of the walk, there might be room on one side to pass it. In some cases, we might, perhaps, adopt a winding course for the circumferential walk; but, unless the curves coincided with those of the boundary fence, or were made very large, this direction would be so unsuitable in point both of use and expression, that we would avoid it as much as possible. A serpentine walk in a churchyard is a waste of ground, with reference to the placing of the graves; and it has too much of the pleasure-ground air, or even, perhaps, of an air of affectation, for the gravity of the scene.

In every old churchyard there are some of the gravestones, and perhaps even of the tombs, in which no person living has any interest. We are far from saying that any of these should be done away with, in order to allow a walk to be made straight; but we think that, in cases of this kind, there would not be any impropriety in reducing raised tombs, so as to leave the covering stone on a level with the walk, and forming part of its surface;

or in laying down upright gravestones in a flat position for the same purpose. Some families, also, might consent to this being done with the tombs that they are interested in, as it is frequently done purposely; and, probably, with a very few alterations of this kind, the straight, or other suitable direction of the walks might be maintained. With respect to turf graves, without gravestones, it does not seem unreasonable to suppose, that, after a certain number of years, these may be levelled, and a walk carried over them; because, in the common course of things, such graves are reopened, often in a few years, for the purpose of interring persons who have no connexion whatever with those previously buried there. In a word, the interest of the relations of the deceased in the ground, in these cases, can only be considered as lasting for the ordinary period of rotation in the common parts of a burial ground; and this period, which varies in different churchyards, according to the demand for ground, and the nature of the soil, seldom in any exceeds twelve or fourteen years.

*The grassy Surface of a Churchyard*, when it is newly laid out, should, of course, be even; and the nearer it is to level, the more convenient will it be for all the purposes of interment. Whether even or uneven, it should always have a descent from the church, rather than towards it, for the sake of throwing off the surface water; and in strong clayey soils, in moist climates, provision ought to be made by surface gutters, even in the turf, for conveying the water to underground drains, or directly along the surface to the boundary of the churchyard. In churchyards which have been long in use, the grassy surface is, in general, very uneven, on account of the greater accumulation of graves in one place than in another, and from certain parts being chiefly occupied by tombs, and others by turf graves without marks. Perhaps the chief disadvantage of these inequalities is, that they occasion the production of rank coarse grass, and large weeds, than which we scarcely know anything more unsightly in a churchyard; because they give the idea of neglect, and this seems to derogate from the idea of that respect for the dead, which ought to be the prevailing sentiment raised in the mind by the appearance of a churchyard. If the graves were regularly distributed on some general plan, such accumulations of soil could never occur; and the grass would not be stronger, or the weeds more numerous, in one place than another. One great source of neatness in a churchyard, and consequently of apparent care and respect for the dead, is, the shortness of the grass; and, as the surface is seldom or never so even as to admit of effecting this by mowing, it can generally only be done by grazing it with sheep. In this case, however, flowers cannot be planted over the graves, unless the site, or grave, is enclosed with

an iron fence; but, as this would entail an unreasonable expense on the poor man, who, perhaps, had no other means of evincing his respect for the deceased than by planting flowers on the grave, it follows that mowing or clipping with garden shears is preferable to grazing, for keeping the grass short, and the turf smooth, in churchyards. Another mode which contributes to the same end is, that of never raising the graves above the level of the surface, which may thus be easily mown; but this also appears unjust to the poor man, who, perhaps, can afford no other means than a raised mound to distinguish the grave of even his dearest friend; and, besides, it requires, after a certain period, from the sinking of the graves, to have the turf taken up, and soil introduced to raise their surface to the general level. In all cases, we repeat, it is best to have recourse to the scythe for such places as admit of using it, and in other parts to the hedge-shears. By the constant use of the hedge-shears, indeed, the roughest surface may be kept short and smooth; and, if clergymen were only to see that the leisure time of the sexton and his men was employed in keeping the grassy surface short, churchyards would, in general, be much improved in appearance. The scythe and the shears should always be used when the grass, or other herbage, is quite short, in order to weaken the root, and check the future luxuriance of the plants; in consequence of which, the labour of mowing or clipping, after the first two or three years, would be greatly reduced. On the other hand, if the herbage be allowed to perfect its leaves, and come into flower, as it too often is, before it is cut down, the roots, instead of being weakened by mowing, will be strengthened; the plants having received all the nourishment they require from the leaves, and being prevented from exhausting that nourishment by bearing seed, spring up more vigorously than before, and thus the labour of mowing, instead of being annually diminished, will be increased.

*Trees in Churchyards.* The number of trees which may be introduced into a churchyard depends on its situation and soil; the great object, next to that of leaving abundance of room for the graves, being to preserve dryness, in order to permit the escape of the mephitic effluvia, which can only be effected by the admission of abundance of light and air. Where the soil is clayey, and the situation low, very few trees are admissible; and these few should be small fastigiate-growing kinds, that neither cover a large space with their branches, nor give too much shade when the sun shines. In an elevated open situation, where the soil is sandy or gravelly, the trees in a churchyard may be comparatively numerous; because the shelter which they will afford in winter will produce warmth to persons crossing the churchyard to church; and, from the airiness of the situation, and dryness of the soil, they will not produce

damp when their leaves are on in summer, but will freely admit of evaporation from the surface.

Supposing a new churchyard to be planted, we should place the trees chiefly at regular distances, in rows parallel to the walks. There are very few churchyards that would bear more trees than a row on each side of the circumferential walk, and also on each side of the walks leading from the entrance gates to the church doors; while, in cases of limited extent, and a clayey soil, a row of trees, planted at regular distances along the boundary fence, will, perhaps, be as many as can be introduced without producing damp; and, in others, a few trees along each side of the principal walk from the entrance gate of the churchyard to the church will, perhaps, be enough. It must not be forgotten, that the principal part of the area of a churchyard, in general, lies from east to west, and, consequently, that all trees planted in that direction will throw a shade upon the ground the greater part of every day that the sun shines, throughout the year. For this reason, where the soil is so damp, or the situation so confined, as to render it advisable to introduce but very few trees, these ought either to be in lines along such of the approaches to the church terrace as lie in the direction of north and south; or to be introduced as single trees, at the intersections of the cross walks with the boundary walk.

The kinds of trees to be planted in a churchyard form a subject of as great importance as their number; because a single tree of some species will produce more bulk of head, and consequently more shelter, shade, and damp, than half a dozen trees of some other kinds. As a guide in the choice of the kinds of trees, it may be adopted as a principle, that none ought to be planted which will grow higher than the side walls of the church; because to conceal the church by its appendages or ornaments is inconsistent, not only with good taste, but with common sense. By good taste, in this instance, we mean allowing the church to have its proper expression, as the principal and most dignified object in the landscape. Thorns, hollies, maples, sycamores, yews, mountain ash, wild service, &c., are suitable trees for the churchyards of very small churches; and the common maple, some species of oaks, such as the evergreen oak, the Italian oak, and some of the American oaks, with a host of other middle-sized trees, are suitable for the churchyards of churches of the ordinary size. There are very few country churches indeed which have even their towers, or spires, sufficiently high to admit of the stronger-growing elms or poplars to be planted in their churchyards. The Oriental plane (not the Occidental) may be especially recommended, on account of the stone-like hue of its bark and foliage, its finely cut leaves, and agreeable shade, for

churches of both the largest and the middle size. The purple beech would harmonise well in churchyards with the dark yew; and the flowering ash is also a very suitable tree.

As all trees in churchyards must be liable to have their roots injured by the digging of graves, this is one grand argument for planting the trees alongside the walks; because in that case there will be always one side of the tree, the roots of which will remain untouched, viz. those which spread under the walk. For the same reason, trees with roots that spread near the surface, such as the pine and fir tribe, should seldom be made choice of. Were it not on this account, the cedar of Lebanon would be one of the most fitting of all trees for a churchyard, from the sombre hue of its foliage, and its grand, and yet picturesque, form; from the horizontal lines of its spreading branches contrasting strongly with the perpendicular lines of a Gothic church; and, above all, from the associations connected with it, on account of its frequent mention in *Holy Writ*. For all these reasons, it were much to be wished that, in all new churchyards, two or three spots (each of about 30 ft. in diameter) were set apart, not to be broken up for interments, and each planted with a cedar of Lebanon. In many old churchyards in the country, a spot sufficiently large for at least one cedar might easily be spared: and the clergyman or the churchwardens who might plant a cedar on such a spot, and fence it sufficiently while young, would confer a very grand and appropriate ornament on the church, and would deserve the gratitude of the parishioners.

No trees should be planted in a churchyard the natural habit of which is to grow near water, such as willows, alders, &c.; because the expression conveyed by such trees, being that of a moist situation, is, as we have seen, altogether unsuitable for a churchyard. On the whole, the different species of thorns, the common, Montpellier, mountain, and other maples, the wild service, the whitebeam tree and its hybrids, the holly, the yew, the Irish yew, the red cedar, the Oriental arbor vitae, and a few others, are the most suitable low trees for churchyards; next, those which grow about the height of the Norway maple; and, lastly, those which rank in point of size with the Oriental plane.

In the case of old churchyards crowded with graves and gravestones, it may be difficult to introduce trees in regular lines, and at regular distances; in which case, a picturesque disposition may easily be effected, by scattering them irregularly, but very thinly, over the surface. It is also proper to observe, that, when a churchyard is to be united with a garden or pleasure-ground, or with a park or paddock, some of the trees characteristic of pleasure-grounds and parks, and already existing in the particular locality, will be required in the churchyard, in order to

produce harmony, and to show that the one scene belongs to the other. On this principle, we would, where the churchyard joined a garden or pleasure-ground, occasionally introduce the gay laburnum, the showy Chinese crab, the perfumed cherry, and similar low trees; and, where a churchyard was to be harmonised with a paddock or a park, the horse and sweet chestnuts, or the oak, elm, or beech, might be admissible, according as the one or other of these trees prevailed in the park around it.

*The System of Interments in Churchyards* is, in general, very imperfect; and, indeed, in many cases, no system whatever is adopted. The obvious principle, we think, is, to place the tombs near the edge, and consequently near the walks; and to place the graves without marks in the interior of the compartments. For this reason, we would reserve a strip of ground, 10 or 12 feet in width, along both sides of all the walks (which would include the whole of the space between the boundary walk and the boundary wall, these strips should be devoted exclusively to family burial-places, whether merely indicated by corner stones, or railed in, or containing gravestones or tombs. The whole of the compartments being thus bordered by strips for family burial-places or purchased graves, the interior of each compartment might either be laid out in strips parallel to the borders, with gravel walks between; or devoted to graves without marks, laid out in the manner of a garden, with regular alleys of turf between.

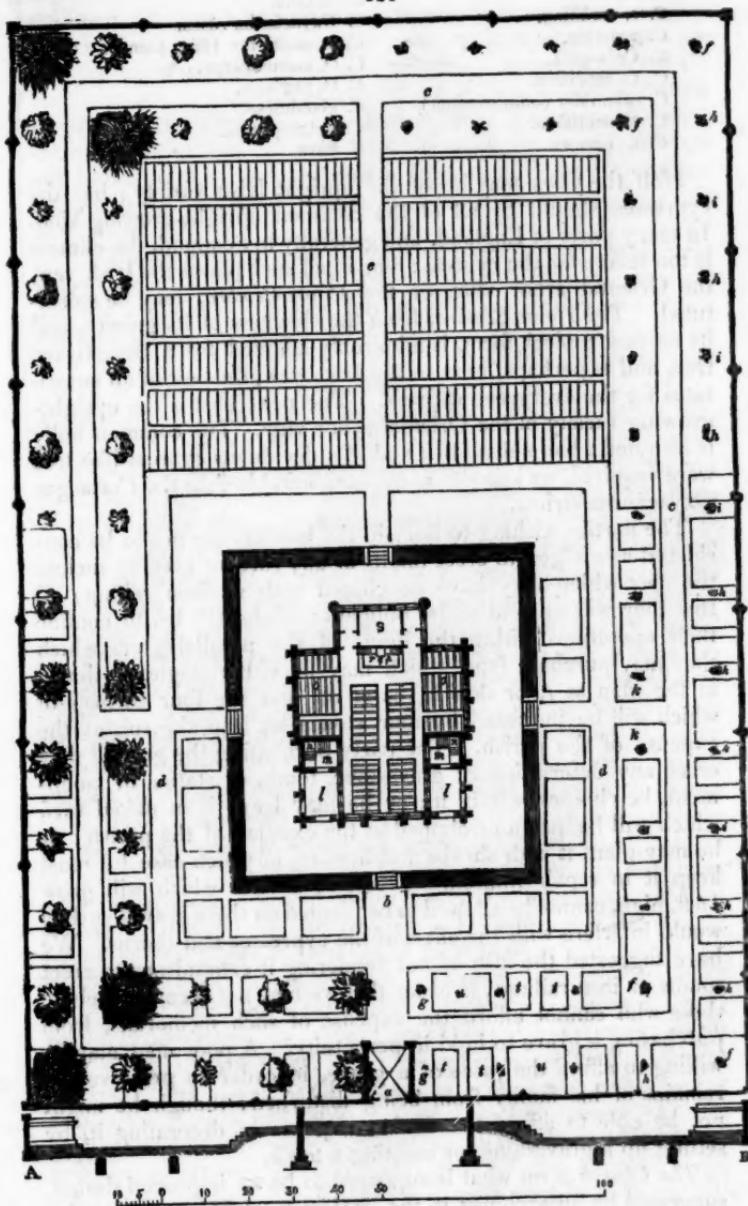
The total space devoted to graves without marks should be divided into such a number of parts as will correspond with the years required, in the given soil and situation, to decompose a corpse and an ordinary coffin. If possible, there should not be less than fourteen divisions; that number of years being sufficient, in almost any soil, to insure decomposition. Then, commencing at one side of one of these fourteen portions, the markless graves may be placed parallel to each other, with rather more than the width of a grave between them; all the graves which may be required during a year being dug to the same depth. At the expiration of this period, the next division may be commenced, whether the one previously in use were filled up or not; and at the end of fourteen years, when the first rotation was completed, the first compartment would be begun on the second time, and graves only made in the intervals between what had previously been graves. In the third rotation, the graves may be made in the same places as the first, there having been an interval of twenty-eight years between the two interments in the same grave.

In using any division of this kind, more especially where the interments are numerous, the sexton should commence at the lower side; because, in all crowded grave-yards, the substratum

is loaded with the moisture of decomposition; and, if the sexton were to work down a declivity, instead of up it, he would find his labours extremely offensive and unwholesome, while the surrounding atmosphere would be contaminated.

In Germany, it is customary, in some churchyards, to bury all the children under a certain age, who are not to have grave-marks, in a compartment by themselves; not only because the waste of ground occasioned by placing large and small graves together is thus avoided, but because it is found that, in the case of children, the ground may be used again much sooner than the ground in which adults have been buried. But we do not think it necessary to recommend such a practice for Britain, where churchyards are, or may be, increased in size with the increase of population.

Fig. 121. is the ground plan of a churchyard laid out agreeably to the foregoing principles; and fig. 122. is an isometrical view, supposing the trees to have been ten or twelve years planted, and some of the gravestones and tombs to have been erected. The churchyard is of small size, and is adapted for an agricultural parish, where the majority of the inhabitants are in moderately good circumstances, and whence it is supposed that the superfluous population will migrate to the towns, and leave the number of permanent inhabitants comparatively stationary. There is only one entrance to the churchyard, at *a*, over which there is an archway for the protection of persons waiting during rain or snow. The walk is 8 ft. broad, and proceeds direct to the steps (*b*), which ascend to the platform on which the church stands. The circumferential walk (*c*) is 6 ft. wide, with a border for tombs and gravestones on each side, 12 ft. wide. There is also an inner walk (*d*), of the same width, between which and the platform on which the church stands there is another 12 ft. border for tombs. The space for graves without marks lies on each side of the walk *e*, and is in 14 divisions, with room in each for 24 graves. Each of these divisions is separated by a grass path 2 ft. wide. The two surrounding borders, intended for tombs, are planted with trees 20 ft. apart. At the angles (*ff*), these trees are cedars of Lebanon; at the main entrance (*gg*), they are yew trees; and the remainder of the trees are different species of thorns (*Crataegus*) (*h*), and evergreen cypresses (*i*), alternately; except opposite to the side entrances to the platform, and at the angles adjoining the cedars, where there are the yew trees, marked *kkkk*. Whatever tree is introduced on one side of the walk, the same sort is also planted on the other; for the sake of preserving uniformity in the perspective. The number of trees wanted for this churchyard will be 8 cedars of Lebanon, 20 yews, 28 cypresses, and 32 plants of *Crataegus*. The latter may be of the following 16 species or varieties:—

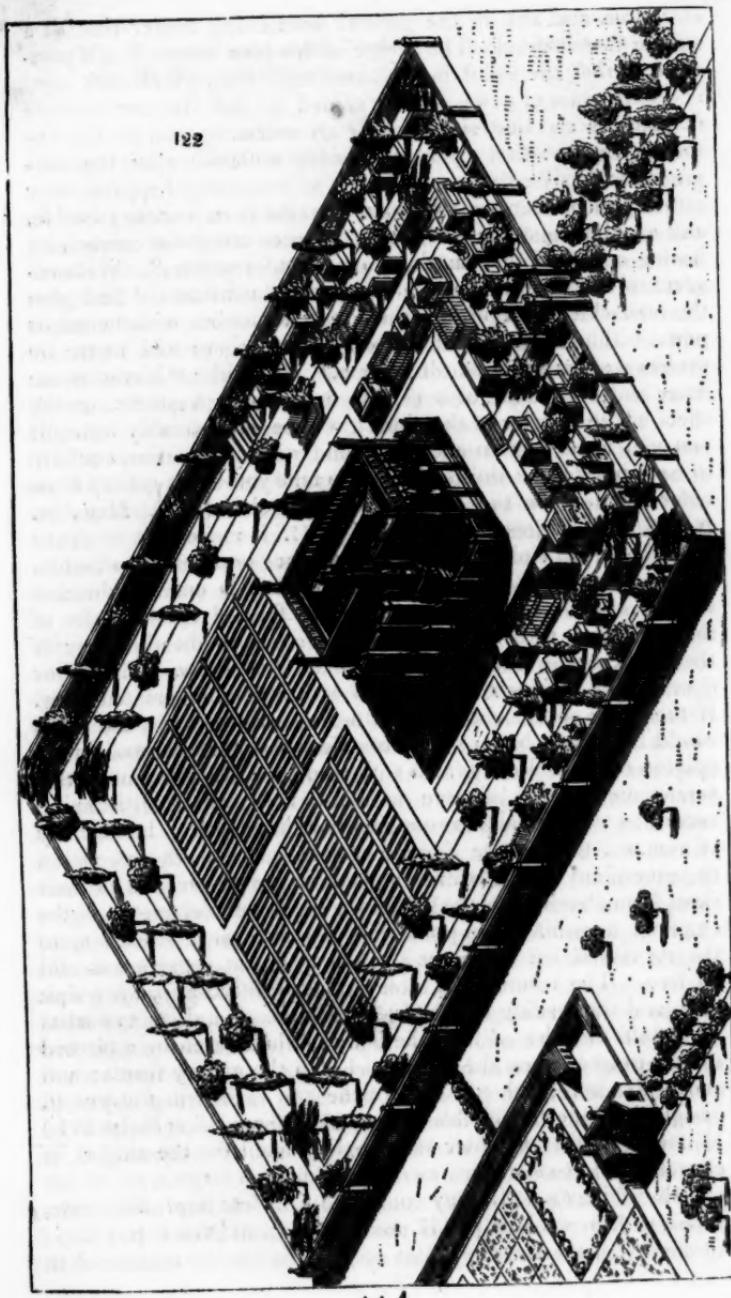


<i>C. coccinea.</i>	<i>C. Arônia.</i>
<i>C. c. corallina.</i>	<i>C. Oxyacántha rôsea.</i>
<i>C. punctata.</i>	<i>C. O. mûltiplex (flore pleno).</i>
<i>C. Crûs-gâlli.</i>	<i>C. O. melanocárpa.</i>
<i>C. C. salicifolia.</i>	<i>C. O. præcox.</i>
<i>C. orientalis (odoratissima).</i>	<i>C. glandulosa.</i>
<i>C. tanacetifolia.</i>	<i>C. heterophylla.</i>
<i>C. t. Leecana.</i>	<i>C. flava.</i>

Half the yews may be of the upright Irish variety; but the cypresses should be all of the common upright-growing kind. In many parts of England, and generally in Scotland, the climate is too severe for the cypress; but in all such places the Irish yew, the Oriental arbor vitæ, or the *Pinus Cembra*, may be substituted. The *Pinus Cembra*, from the slowness of its growth, and its narrow conical form, is admirably adapted for a churchyard tree, and is perhaps, next to the Irish yew, the best of all substitutes for the evergreen cypress. The next best is the upright-growing variety of the Oriental arbor vitæ. The common holly is also not a bad substitute; and, if a deciduous cypress-like tree were required, we know of none more suitable than the *Cratægus Oxyacántha strícta*.

The parties wishing to bury in the borders are not to be considered as obliged to erect tombs of any sort, or even to enclose the spot which they have purchased with an iron railing; all that they will be held under obligation to do will be, to confine their operations within the limits of the parallelogram which they may purchase (and which may be either single, as shown in the plan at *t*, or double, as at *u*), and the four corners of which will be indicated by four stones let into the soil at the expense of the parish. The party purchasing the ground may erect any description of gravestone, tomb, or statue, or monument, he chooses, within it; or he may leave it in naked turf, which will be mown or clipped at the expense of the parish; or he may plant it with shrubs and flowers, in which case he must keep it in repair himself. Trees, or shrubs which will grow 15 ft. high, cannot be allowed to be planted on these graves, as they would interfere with the effect of the cypresses and thorns. We have suggested the idea of not rendering it compulsory to erect tombs or iron railings, in order that we may not seem to exclude those who cannot afford the expense of such memorials, from purchasing a grave to hold in perpetuity. A poor man may be willing to afford the price of a grave, in order to preserve the remains of his family from being disturbed; though he might not be able to afford the farther expense of decorating it, by setting up a gravestone, or erecting a tomb.

The Church is on what is supposed to be an improved design, suggested by an architect in the *Architectural Magazine*; and it differs from the ordinary plan of churches in the manner of the



entrances, and also in the general form being nearer that of a square than is usual. The author of this plan adopts it as a principle, "that the point in the outer walls from which each pew, and each class of pews, can be gained by the shortest possible distance, is the best situation for an entrance; and for the following reason: that a person entering a church after the congregation has partly assembled, or, as frequently happens, after service is commenced, may gain his sitting as soon as possible, and avoid at least one half the disturbance otherwise created, by having only half the length of an aisle to traverse." With respect to the general form, this architect considers "that plan the best which concentrates the greatest number of benches or pews within a given distance of the preacher; and hence he prefers a square to a parallelogram." He adds: "Never let the inner entrance door of a church open under a gallery, or the effect of the interior of the church will be irrecoverably lost. If you will have western entrances, and western galleries, contrive to have porches or cloisters, so as to take you to the gallery front before you enter the body of the church." (*Arch. Mag.*, iv. p. 568.) The ground plan in *fig. 121.* is made in accordance with these principles: *l l* are the entrance porches; *m m*, staircases, from which the body of the church is entered through lobbies at *n*. The inner lobbies are formed by two pairs of folding doors, with a space between, equal to the thickness of the walls of the towers which contain the stairs. The inner doors of the lobbies may be glazed with stained or painted glass. If the body of the church be fitted up with benches, the effect would harmonise better with this style of architecture; and, in the opinion of several clergymen with whom we are acquainted, this arrangement would be more suitable to the spirit of Christianity, according to which all are equal in the sight of God. It is worthy of remark, that in the Russian churches there are no benches or seats of any kind whatever, and nothing to prevent the meanest slave from standing by the side of the highest noble, or even of the emperor himself. The portion of the sittings marked *o o*, to the right and left of the pulpit, our architect considers should be free. The communion table is to be placed at *p*, the pulpit at *q*, and the reading desk at *r*. "The vestry and singers' seats (*s*) should be divided from the body of the church by a pierced screen, finished upon the same level with the gallery fronts; and above this screen should be a niche and canopy to the pulpit, designed as much as possible to improve the sound." (*Ib.*, p. 571.) Whoever wishes to enter into farther detail on the subject of churches, and to see plans and elevations on a large scale of the one shown in *fig. 121.*, may consult the *Architectural Magazine*, vol. ii. p. 393.; vol. iv. p. 237. and p. 566.; and vol. v. p. 223.

**ART. III. *Hints on Construction: addressed to Architectural Students.***  
By GEORGE GODWIN, Jun., F.S.A. and M.I.A.

## No. 3.

SINCE the publication of the last paper, we have been kindly invited, in several quarters, to enter more fully into the matter, and to render the series more comprehensive, than was at first proposed; in consequence of which, although more space has been already occupied on the subject of foundations than was intended, we shall venture to add briefly some further remarks under the same head. Before doing so, however, a few words, in regard to the proceedings of the architect previous to the commencement of a building, may not be deemed impertinent or out of place; notwithstanding, probably, they might have been introduced with greater propriety in an earlier paper.

The drawings, although made on the scale of a quarter of an inch to a foot, which, as all know, is the scale most readily understood by workmen, and the most easily measured from with a common two-feet rule, should, nevertheless, be figured in feet and inches, wherever practicable, in order to save the workmen's time, and to prevent those errors that, in one place or another, will always occur, if they be compelled to obtain every dimension by the scale. We know very well that the course here recommended is not by any means generally followed; indeed that, in some cases, when the architect has not quite made up his mind to the size of an opening, or the extent of a projection, it is purposely left to the judgment of the workman, so that if, when done, it should not serve the required purpose, he may be easily called a foolish fellow, and be told to alter it. Alterations, however, generally speaking, tend to lessen the goodness of a construction, and, therefore, if an architect would have his work executed in a perfect manner, and progress satisfactorily both to himself and the tradesman (who ought ever to be considered), he should give all necessary attention to the details at starting, and clearly mark all the dimensions on the drawings.

If the value of a building to be erected exceed a thousand pounds, we would always advise the engagement of a clerk of the works, who should be paid by the architect's employer, and be quite independent of the tradesmen. Should the building be smaller than that to which we have alluded, or the expense of his services during the whole of the works be objected to, the engagement might be limited to the completion of the carcase. The additional expense, in this case, probably, would not exceed twenty pounds, even if the works are performed under contract; and if they are to be measured and valued, or

the materials charged on delivery, a great saving would be effected ; while, in both cases, increased excellence in the workmanship would unquestionably be attained. An architect, however indefatigable he may be in his vocation, or however numerous his pupils, cannot be always on the spot at the proper moment to prevent the use of inferior materials, or of defective modes of construction. This is especially the case during the progress of the carcass, when both may be speedily hidden, and when the evil, even if afterwards discovered, cannot be remedied without injury to the general stability of the edifice, or, at all events, delay.

Until within a very short period of time, it was occasionally difficult for the architect to procure an efficient and conscientious clerk of the works, when those whom he had previously employed were engaged. This is now lessened, inasmuch as the clerks of works have formed themselves into a society, which meets at Exeter Hall, with the view, not merely of opening a more ready means of communication, as a body, with architects, than was before practicable, but of offering its members facilities for reference and study, to improve their efficiency as individuals ; and we are glad of this opportunity to notice the society, as we think it will prove advantageous to the profession generally. We return now to our subject.

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FOUNDATIONS. (*Continued from p. 310.*)

THE ground within the excavations prepared for a building, or the top of the concrete substratum, if one has been introduced, should be made *perfectly level*, because, in the event of any irregularity in this respect, as the materials usually employed to form the walls of houses are of a uniform height, it will be transmitted throughout the building. That is, for example, should the trench for the front of the structure be three inches lower than that for the back of it, as the wall in the front and the wall in the back will each separately be built up to the height marked on the section for the basement story, the consequence of course will be, that when the timbers for the floor are put on, they will be as much out of a level as the ground was in the first instance ; and in like manner the defect will occur throughout every floor to the top, unless, being discovered, measures be taken to remedy it.

The footing of brick walls, especially the lowest part of it, should not be formed of less than double courses, lest it be broken off by the superincumbent weight ; neither should each set-off project more than a quarter of a brick on each side before that above it, for the same reason. When concrete is used, care in this respect is less important ; and for  $1\frac{1}{2}$  brick walls,

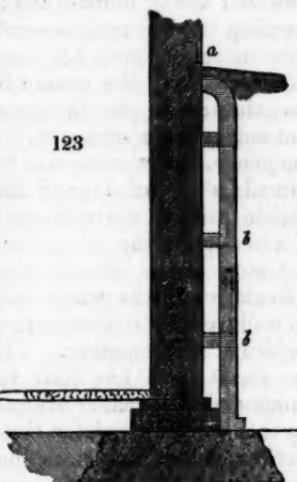
for instance, two courses  $2\frac{1}{2}$  bricks thick, and one course 2 bricks thick, will usually be found sufficient footing. Fig. 123. represents the section of such a wall, standing on a concrete foundation formed within a trench, the sides of which are pared down inwards, so as slightly to increase the base.

Around all the walls of the foundation against which ground will lie, a dry area should be formed, in order to prevent dampness within the building. This may be done with a half-brick wall, placed at a little distance from the part to be protected, as represented by the above sketch. The space thus enclosed must be arched over at the top, just below the level of the ground; and if iron air bricks, or small gratings communicating with the dry area, be introduced, wherever open areas are formed around windows or elsewhere, a free circulation of air will be obtained. Should no open areas occur in the basement story, small flues or throats may be formed at certain intervals within the wall, terminating just above the ground, to receive an air brick, as shown at *a* in the sketch already referred to. The wall of the dry area, although under ground, should not be carelessly executed, as it must necessarily be subjected to considerable pressure, and the workmen should be directed to put in whole headers at certain distances, or bricks placed lengthwise in the direction of the thickness of the wall, as *b b*, so as to stiffen it.

The usefulness of forming inverted arches under openings in foundation walls, for the purpose of equalising the pressure upon the ground beneath a building, is so universally admitted, that to recommend their adoption, or even to mention their application, may seem to many impertinent. We will venture to say, however, it does not always follow, that a precaution is taken because the expediency of so doing is known; or that because a statement has been often made, it may not be usefully reiterated. Experience, we are led to believe, teaches differently.

We will suppose that the front wall of a building has in the lowest part of it six windows, opening at certain distances from each other. In this case, as will be readily seen, the superincumbent weight will be more felt immediately beneath the piers separating these openings than beneath the openings themselves; and should it happen that the foundation is not very good, the

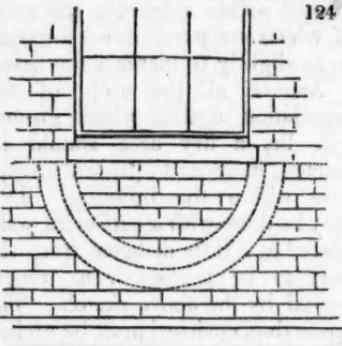
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piers would probably penetrate the ground, leaving in its original position less or more of the brickwork beneath the openings, according to the excellence, or otherwise, of the workmanship, and producing ruptures, not merely in the wall, but in the internal plastering, and the stone sills. If, however, an inverted arch, as shown in *fig. 124.*, be turned beneath each of the openings, the pressure will be equally distributed over the whole base of the wall, and the above evil be prevented; because, even should the ground yield, the whole line of wall would, with greater probability, sink together. The parabolic form has been recommended by mathematicians as that best adapted for these arches, and, strictly speaking, perhaps it is so. Still, for all practical purposes, we should prefer to use semicircular arches, as being perfectly effective, simpler in execution, and as requiring less depth of wall beneath the opening. Segmental arches produce a greater lateral thrust than semicircular arches (increasing with the extent of their radius), and should, therefore, be employed with care. It is hardly necessary to say, inverted arches should be well executed, their usefulness being otherwise in great measure interfered with. They should be formed of two or more 4-inch rims; and, if the wall in which they are placed be out of sight, as is usually the case, should go through its whole thickness. It is advisable, in all instances where they are required, to show them in the drawings (either on the elevations or the sections), for merely a general notice in the specification, "to turn inverted arches where directed," is often disregarded (if no clerk of the works be employed), until it is too late to remedy the omission.

Drains, tanks, and cesspools, although often left undone by the workmen until the completion of the carcass, may with propriety, we think, be alluded to under the present head, insomuch as it is very desirable in all cases, that the position of the drains should be marked on the plans by the architect before the building is commenced, so that openings for their entrance to the house may be left, and the necessity for cutting down the brickwork, which greatly injures the solidity of the remainder, may be avoided. When practicable, these openings should be made beneath doorways. It is likewise advisable, too, to dig the cesspools and wells in the first instance, not merely to obtain water for the concrete and mortar, but in order to ascertain with

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certainty the nature of the soil at a greater depth than is required for the foundations themselves.

The operation of steening and doming wells, as generally performed, hardly requires comment, farther than to say, that an opening covered by a piece of stone should be left in the crown of the dome, in order to give ready means of access. Mr. Hitch, brickmaker of Ware, has introduced a variety of segmental steening bricks, adapted to the ordinary sizes of cesspools and wells, which make very superior work; but as, in the operation of steening wells, the builder now often uses bats and old bricks, which he could not otherwise dispose of, it is not probable that they will be very generally employed. Where, however, durability is required, or where the well is subjected to more than ordinary pressure, as it would be, for example, when formed near the walls of a building, these may be advantageously resorted to. Each is about 12 in. long, and 5 in. in height, and their cost is 2s. 9d. per yard superficial. The top of all cesspools, it seems needless to say, should be below the level of the basement floor. In the construction of drains, it is important to make them sufficiently large, to have as few asperities within-side as possible, and to give them as much inclination, or fall towards the outlet, as can be obtained, certainly not less than 4 in. in every 10 ft. Drains within a building, and which may become choked up, should be covered with pieces of stone, although cylindrical at bottom, that being the form most easily cleansed, as they can then be examined at any particular point without injuring the work, which is not the case if the drains be barrelled. Barreled drains, however, are stronger than those thus covered, and are, therefore, better adapted for exposed situations. Mr. Hitch, before mentioned, has obtained a patent for a brick drain of simple but excellent construction, of which *fig. 126.* represents a section. Each brick is about 18 in. long, segmental, and wedge-shaped; and is rebated at the ends (as shown by *fig. 125.*, which is a longitudinal section of a single brick), so as to fit together accurately, without much cement. On the top of each, two indentions are formed, in order to lessen the quantity of earth required for making them, and afford a handle to the workmen. Four bricks form a 9-inch drain, as represented by the sketch, which can be executed complete for 11 $\frac{1}{2}$ d. per foot running; and six of them, having a slightly different radius, make a 12-inch drain, costing 1s. 4 $\frac{1}{2}$ d. per foot: in both cases exclusive of digging. The bricks themselves cost about 17s. per hundred, and the amount of labour and cement required is very small.

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The necessity of trapping all drains in or near a dwelling, that communicate with sewers or cesspools (in order to keep back bad odours and vermin), although apparent, is sometimes forgotten, which produces serious inconvenience. It is ordinarily effected by forming a small cesspool or receptacle at some convenient point in the drain, below the bottom of the drain itself, and which cesspool, in consequence, must usually remain charged with water. A piece of stone, or, if the drain be small, a large slate, occupying the whole area of the drain, and descending into the water in the cesspool, to within a small distance from the bottom of it, is then introduced and secured, so that nothing can pass from one part of the drain to the other, but through the water.

In sewers or large drains, into which individuals must occasionally descend, for the purpose of examining or cleansing them, there should be occasionally vents without traps of this sort (as in the high roads and elsewhere), otherwise the mephitic vapours and explosive gases, which are generated during the decomposition of animal and vegetable matter, would be confined therein, and the person descending would be suffocated in the one case, or, if he bore a light, blown to pieces, to use a vulgar phrase, in the other.

In many places the preservation of rain water is a matter of some importance; indeed, there are few situations in which, at one time or another, it may not be found exceedingly convenient to have the means of rendering it available for domestic purposes. Tanks to receive it should, therefore, be formed where practicable, which can be done at comparatively small expense in different ways, varying, of course, with the locality, and the degree of excellence required. We have adopted the following mode on several occasions, and have found that it answers the purpose very satisfactorily. The ground having been taken out to the required depth, pave the bottom with one flat course of bricks grouted with cement, and on this set singly two courses of plain tiles in the same material. Form the sides each of two 4-inch walls of bricks and cement, breaking the horizontal joints: and, when completed, render the whole of the interior with cement, 1 in. in thickness. Turn a brick arch in mortar over the tank thus formed, leaving a man-hole 2 ft. square, with proper trimming stones, and a Yorkshire stone paving cover. The suction pipe of a pump placed within a few inches of the bottom, and a small drain communicating with a sewer or cesspool, introduced at the top of the tank to carry off the superfluous water, when there is any, are then all that is required to render the tank fit for use.

ART. IV. *Candidus's Note-Book.*

## Fasciculus XII.

"Sicut meus est mos,  
Nescio quid meditans nugarum; et totus in illis."

I. VITRUVIUS has given us an exceedingly fantastical list of qualifications, insisted upon by him as requisite to an architect, including among them both law and music! Neither is this list less remarkable for omitting all mention of much which it is highly desirable that an architect should be a proficient in; and which, indeed, is indispensably necessary, if he aspires to be accomplished in his profession, and to rank as an artist. To this end, it is necessary that he should understand the æsthetic department of his art thoroughly; be master of its picturesque power, and be able to combine and invent; and also, that he should be well versed in all that comes under the head of decoration. Let us discuss the matter as long as we may, it comes to this at last, that the power of architecture, as a fine art, manifests itself only in æsthetic effect. Effect is its alpha and omega. The first requisite in the art is effect; the second is—effect; the third is—effect. All the rest may be produced by money, and labour, and skill. In confirmation of which, may be instanced St. Peter's at Rome. Provide but the funds, and a fabric equally astounding might be erected by any one; not, indeed, without the requisite constructive skill, but without any of the informing power of art. This, I suspect, will be considered very strange doctrine; and no wonder, since it is so contrary to that by which the world has been so long humbugged in regard to architecture. Humbugged is a strong expression, but is the most apt I can find; nor is it, in my opinion, at all too strong for the occasion. For what can be more preposterous, than, in one and the same breath, to assign to architecture a place among the fine arts, and then tell us that it may be reduced entirely to the merest mechanical rules.

II. Speaking of the *Kur-haus* (public rooms for drinking mineral waters) at Brückebau, Dr. Granville says, in his *Spas of Germany*: "This is another of the great architectural works of which Bavaria may well be proud, and the idea and design of which were suggested by the king himself. It is the handsomest building of the kind I have seen in my general excursions to the spas of Germany; and its various decorations are equal to any of the most exquisite productions of the Bavarian artists. On the right, a grand flight of stairs leads to the king's gallery. The pavement is tessellated, and the *plafond* richly painted in fresco. From it depend five gigantic lustres, which are said to give to the interior, on gala nights, the splendour of sunshine; lighting up every part of a building, which, for lofti-

ness, daring proportions, and dimensions, is such as an English people seldom witness in their public edifices. It is the production of Gudensohn (Gutensohn ?), a native of Lindenau, in Switzerland; who, having shown, while very young, and at Munich, a considerable taste for architectural drawing, the king of Bavaria sent him, at his own expense, to Italy and Greece, to complete his studies. He is now residing at Wurzburg, and is employed in public works on account of the crown. I did not ascertain what such a public building might have cost in Bavaria; but it would be easy to calculate what sum would have come out of the Exchequer in this country, were such a one to be attempted." Malicious Granville! surely, you might have spared John Bull's feelings that bitter and sarcastic remark.

III. How far the representation of the Albany State-House, given in No. 887. of the *Mirror*, is correct, 'or the contrary, I undertake not to say; but I can fearlessly declare that, if it resembles it, the New State-Hall at Albany is mere carpenter's Grecian in its design. Imagine an Ionic hexastyle with fluted columns stuck up against a two-storied *Holinthwall* house, and you have the image of it at once. Really, such a thing is enough to make one wish Grecian architecture buried ten thousand fathoms deep, beyond the possibility of resuscitation, and the very name of it obliterated for ever. It is the very doggerel of architecture. Why! if such things are to be allowed to pass for Grecian, there is no reason why apothecaries' Latin should not pass for Ciceronian. Taking this building as a sample of its architecture, I should say that America must be the paradise of builders, and the purgatory of architectural connoisseurs.

IV. There is one thing I very much admire in Mr. Bardwell's book, entitled *Temples, Ancient and Modern*; namely, the very complimentary opinion he has passed upon one of the articles he has borrowed from this very *Note-Book*; but, methinks, he might as well have acknowledged from what publication he extracted it. However, as he did not choose to do so, I am at liberty to suppose that he was not in the slightest degree influenced by partiality of any kind.

V. In attempting to apply ancient styles, Grecian or Gothic, to our own actual wants and purposes, we have for the most part fallen into the error of those unskilful translators who give us a harsh, bald, frigid version of an original poem, without showing any other kind of ability than that of being able to make out the meaning of the words. Herein most of those who have been complimentary to classical architects resemble them. When they give us an express imitation of some particular example of an antique order, they fancy they have achieved a prodigy; although in every other part, save the order itself, they should have run diametrically counter to the genius of the

style they profess to exhibit to us. I may spare myself the trouble of pointing out any special instances of this very great and fundamental error, for I may content myself with saying, *Circumspect*; because those who are unable to detect it, when their attention is directed to the subject in general terms, are not likely to be able to feel, were it exemplified by particular cases. While the correctness observed is only partial, the incorrectness indulged in affects the *ensemble* to such degree as to substitute a character quite different from that aimed at, and pretended to be faithfully adhered to. Whatever be the style we profess to follow, if we purpose to follow it as a model, and not as supplying us with elements to be shaped as circumstances may require, and moulded into something different, yet coherent in itself, the least we can do is to be

“ True to its sense, yet truer to its fame; ”

which admirable line of Denham’s ought to be impressed upon the mind of every architect.

VI. Happening to be talking of styles, the other day, with a friend, he observed, “ The one which I can stomach least of any is the *roast-pork* style. I mean that where walls, instead of being rusticated, are merely scored with lines. The effect thus produced is exceedingly monotonous and poor; and the practice itself quite a modern one, without either beauty or propriety to recommend it. Even were not vertical joints required, as well as horizontal ones, still it would be no more than proper to have the appearance of them, if only for the sake of consistency as well as variety; more especially when it is considered how many combinations, in point of arrangement, may thus be produced.” This remark led to no discussion or argument between us, because I readily agreed in his opinion; and, indeed, must say, that, of late, many of our architects have served up “ roast pork” to us much oftener than need be, or is exactly agreeable. To be sure, the fashion is a remarkably agreeable convenient one, inasmuch as it saves “ a world of trouble;” for, instead of any adjustment of the rustics being required, as in the other mode, where it is occasionally attended with considerable trouble, the horizontal scorings, *à la* roast pork, may be drawn in the same time as the same number of lines can be ruled on the leaf of a copy-book.

VII. Mr. Gwilt talks of architecture being “ an art demanded by the necessities of man.” Stuff! no such thing. He might as well have told us that bird of paradise feathers, Marabout plumes, and diamonds, are demanded by the necessities of woman. What latitude of meaning he gives to the term “ necessities,” I know not, but he certainly uses it as if he had borrowed it from Beau Brummell’s vocabulary. Alas! how many millions are

there who come into the world, and go out of it again, without even suspecting there are necessities which demand art. Myself, for one, had always considered that the element of art was the superfluous, not the necessary; but I suppose I ought now to stand corrected. Still, were I ever so willing to throw myself into the arms of Mr. Gwilt's doctrine, there is one thing "must give me pause;" or, am I to understand that all the rest of the world are fools, when they talk of patronising art, seeing that it lacks not such officious cockering, when it finds its best patronage in our necessities? But will Mr. Gwilt have the goodness to point out to my ignorance how I am to understand him? For example, it would be a task worthy of, and, I doubt not, easy to, his sagacity, to unfold his meaning; or, rather, to unfold his obscurity, and let us see whether it really contains any meaning at all.

VIII. There is hardly any thing so preposterously absurd, as not to have been uttered by some one or other, as a very sagacious remark. I lately met with a notable instance of the kind in a pamphlet, published about sixty years ago, on the *Improvement in the Metropolis*, wherein the writer ridicules the system of enclosing the squares, and converting them into gardens; urging that it is just as bad taste to introduce the imitation of a park or pleasure-ground within a town, as it would be to build a mock town within a park. There may be something in this that sounds, at first, very much like good sense; but we cannot fail to perceive, the next moment, that it is arrant nonsense, and a most illogical antithesis. Arguing after the same fashion, we might say, that it is as absurd for a man who is ill to desire to be cured, as for one who is in health to wish to be ill; or, as being more in point, that it is just as bad taste to improve and widen narrow streets as it would be to contract and deform broad and handsome ones. The same writer alleges, besides, that the trees and shrubs never can thrive in such situations, but will always have a smoke-dried appearance, and be covered with soot. Well, such might, perhaps, be the case in his time; but, if so, our London atmosphere is now wonderfully amended; for, estimating the mere quality of verdure, not quantity, I never beheld any more brilliant, with more of the "emerald" and "velvet," than the turf and foliage, to-day, in Russell Square.

IX. There are some buildings which are calculated only for a distant view; for though, when beheld afar off, they may please, yet no sooner do we come up to them, than we discover them to be greatly inferior to what they first promised to be. The spell is broken, nor is it to be renewed; because, when we again look at them from a favourable distance, we are aware of the illusion. There is no further any room for imagining beau-

ties in store for us on a nearer examination, which we already know do not exist.

X. Like the bee, an architect should be able to extract his nutriment, that is, the *hyle* or material of his art, from the most varied sources; afterwards concocting it into something altogether his own. He should study, not only what is acknowledged to be beautiful, but the contrary also, and that for a double purpose: first, that, by understanding deformity, he may know how to avoid it, and so profit by the bad taste of others; and, secondly, that he may search whether there be any latent germ of beauty concealed beneath ugliness. Even as "the toad wears a precious jewel in his head," so will many a barbarous design be found to contain something valuable: valuable, at least, to him who knows how to turn it to account, and to purify and exalt the base ore into sterling metal. Plagiariisms of this kind are not only excusable, but glorious: they constitute the triumphs of art. In such a process lies its genuine alchemy. Truly, it is an alchemy, in which very few indeed can boast of being adepts; nay, one the possibility of which is hardly suspected. Some, and it will be well if it should not be all, will exclaim: This may be very fine doctrine, but how is it to be reduced to practice? To which I reply, The application of it to practice is one of those mysteries which every man must find out for himself; or else, under what pretence does he arrogate to himself the title of artist, at least, assuming architecture to be one of the fine arts, when he admits, in the same breath, that it depends entirely upon memory and method; and may be reduced to a process a degree more difficult, perhaps hardly a degree more intellectual, than that of laying bricks and mortar? Do I mean, then, to say that rules and elementary knowledge are nothing? Most assuredly not; for then I should be as extravagantly absurd as those who say (not, indeed, in words, for that would be proclaiming to the world an awkward secret, but by their practice, that rules are every thing) not only that their art cannot step without them, but that it cannot step beyond them; although in all other fine arts the case is different; for in them art does not fairly begin until the point is reached where rules stop short, and the artist is thrown upon his own mental resources.

XI. This year's architectural exhibition at the Academy makes no very great display of talent, and least of all on the part of those who are most known among the profession. There are several showy drawings, though but few striking designs, and still fewer that exhibit decided originality in the treatment of their subjects. Most of the best drawings seem to have been furnished by the Architectural Society. Of the members of the Institute, not above two or three names appear in the cata-

logue. How is this? Is it with them "all talkee, talkee?" or, do they contemplate turning their backs upon the Academy, and getting up an annual exhibition of their own? Let us hope that such is really the case; else they may sit in close divan for ever, without at all enlightening the public, or improving its taste. The only excuse for their not doing so is, their supposing that public taste requires no instruction from them. I should incline to fancy that it is not quite so far advanced; and, if for no other reason, because I find the taste of the public so frequently arraigned by architects themselves. But, to leave a topic that would afford matter for a rather long essay, let me ask how it happens that not one of the designs for the Reform Club was forthcoming for the exhibition? Such things would, at all events, have excited some interest; yet there are very few designs indeed of any public buildings of importance now in progress. Such as belong to that class are mostly for churches; nor are there any of them that are at all remarkable. They are nearly every one of them Gothic, and in that style of Gothic which is least of all adapted for modern imitation, namely, the lancet, or very early pointed, which, however interesting genuine examples of it may be, as studies, look chillingly spruce, meagre, cold, and formal, when applied to modern churches or chapels with brick walls, and a few scanty stone dressings. Such a thing is neither picturesque, nor beautiful, nor dignified. It may, indeed, bear the badge of the style, but has no one single quality that gives it a charm: on the contrary, it looks, at the very best, nice and neat, finical, not venerable; a minnikin imitation of what, so imitated, becomes insipid, if not paltry. Yet, what is to be done, if those who have the management of such matters insist upon having Gothic churches, and the cheapest Gothic that can be manufactured for the occasion? Truly, I know not; but I suspect the public are not quite so enlightened yet as they might be.

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*ART. V. The Cheapside Obelisk. By T.*

"A HANDSOME lamp pillar," as the newspapers designate it, has lately been erected at the western extremity of Cheapside; a fact that we announce rather as the text for our remarks, than a matter of intelligence to the public, of whom few are so benighted as not to observe, if they do not appreciate, the amazing advances of civic taste that are now daily developed. That we may not be suspected to belong to such an impenetrable class of architectural wooden spoons, we hasten to pay our tribute of respect, as deep and sincere as we can possibly muster for the occasion, to the genius that imagined, and to the skill that con-

ferred form and station on the splendid object to which we have adverted. Were it, indeed, less highly distinguished than it is, for a combination of all those qualities which, in the opinion of many, constitute the excellence of the classic works of Pericles, for simplicity, unity, massiveness, and homogeneousness, all associated with utility, the object in question would, from the advantageous position that it occupies, not merely solicit, but command, our attention, as well as that of the public at large. But, so far are we from being content with this admission, so far from feeling satisfied with avowing the wonder that we experience, as our lifted eyes survey this monument of civic illumination in our daily passings and repassings, that we feel anxious to testify to the world that we can appreciate, in this instance, the higher beauties of design; and that we have not received our architectural education in Guildhall College for nothing. In the course of that education, we well remember how our youthful ardour was excited by contemplating the Gothic talents that the great master, Dance, had displayed in the reformation of the Guildhall aforesaid; and how our hopeful ambition was flattered by the prospective possibility of immortalising ourselves, after the same fashion, in the hall of some worshipful livery company. We have now arrived at maturer years, and witnessed the progress of local improvement, great and manifold, from the building of the new London Bridge, down to the un-Palladianising of the Mansion-House steps, and the erection of the City School; an edifice to which we are bound to confess the collegiate structures of Oxford and Cambridge, according to our poor conceptions, offer no parallel; though we suspect that, after all, in the Gothic taste, our friend Dance takes precedence of all recent artists in point of *originality*. This City School, indeed, we must remark, ere we leave it, suffers a sad interment in Honey Lane, to the concealment of many of its charms. But temporary obscurity has been too often the lot of worth, though we would hope that, in this instance, that concealment may not be obviated at the expense of *too great* a sacrifice of surrounding property. We say we have watched these, and similar manifestations, not only of the desire for practical improvement, which all must heartily commend, but also of a presumed extension of taste, which all must be expected as absolutely to take for granted. But, many and increasing as have been, of late, the contributions to the architectural splendours of the city, we confess that they left us totally unprepared for the climax at which we have at length arrived, in the possession of the lamp-post that marks the trivia at the western termination of Cheapside. How was our curiosity excited when the first impediments to public traffic gave notice of some intended erection! How was it augmented, when the daily press informed us of the

mysterious discovery on the spot of certain osteological remains, the property of our forefathers ! And how did that excitement increase, as we daily lingered by the way, wondering, in common with small boys and other idlers, at the growth of granite within its screen of scaffolding ! At length the day of its disclosure dawned upon the city ; the lamp-post, pillar, or obelisk met our eyes, in the naked beauty of its tall proportions ; and to the overpowering effect which its contemplation produced upon our senses and judgment must be attributed our inability, at an earlier period, to acquit ourselves thus publicly of our debt of admiration. But enough of the history of our emotions, which we shall endeavour now to keep so far under control as that we may be enabled to present the reader with a brief critical notice of this imposing production. To the wayfaring man of cultivated taste, who has bestowed due attention upon structures similar in destination to the present ; who has noticed the pleasing obeliscal varieties that already adorn our streets in many directions, and has finished his education with a diligent study of the beauties of King's Cross ; the specimen we have now to notice may afford a new and peculiar interest. Unlike the pile of King's Cross, indeed, in amplitude of dimensions, and distinguished by the chastened severity of its style, rather than for that rich multiplicity of parts which captivates us in the former, the erection in Cheapside, when so compared or contrasted, affords us a remarkable elucidation of the mode in which similar and consummate effects may be produced upon our feelings by exactly opposite means. But, not to attempt a parallel between the performances in question, equal as they are in merit, we proceed to observe, more specifically, that the genius which designed the monument in Cheapside is one that happily combines caution with originality. Less gifted minds might have apprehended that there was no extraordinary beauty investing the form of an obelisk, even under the most advantageous circumstances of location ; and that, if it had been otherwise, London already possessed a sufficient number to vie with Egypt herself in variety of their outlines. Again, their love for Continental vagaries might have led the objectors to desire the imitation of some fantastic foreign shaft, with its cinctures, rustications, entwining serpents, and so forth ; or some modification of fountain architecture from Paris or from Rome. Or they might have been such head-strong lovers of innovation as to be content with absolutely nothing ready made, but clamorous for a design showing some new exercise of thought and fancy. Unaffected, however, by the dread of critics and their demands, the artist proceeds in his arduous task. His conviction, that obelisks already erected had answered their purpose to admiration from time immemorial, whether as halting points or lamp-posts, decides the case irrevocably in favour of another

obelisk ; while his originality of invention suggests that a variation in its form may be made with equal novelty and aptitude ; and its distinguishing beauty, therefore, is that it is hexagonal in plan, instead of quadrilateral ; a device more worthy of a hecatomb than were all the discoveries of Archimedes. But to begin at the beginning : the basis of the structure is composed of an ascent of two steps, concentrically circular in their plan, but whose surfaces receive an inclination, or weathering in six faces, answerably to the six sides of the superstructure ; the intersection of which weathering with the vertical face forming the circular boundary or rise of the step, produces an undulation of outline peculiarly novel, and most classically Egyptian. The lines or ridges that result from the concurrence of these six surfaces of inclination are terminated, upon the extreme circumference of the upper step, by as many iron posts (six, to wit), clad in a livery of green paint, and each squared by its attendant spur-stone, all guarding the access to the granite majesty within. That object may be said to consist of two parts, the plinth and the obelisk proper. The former exhibits a vertical boundary of six plain sides, and a flat top, of such amplitude as to present a commodious seat for those members of our juvenile population who bear greasy burdens, or delight in pecuniary speculation upon a limited scale. The latter, or superincumbent mass (not of boys, but of the obelisk proper), is distinguished, not only by the hexagonal form of its horizontal section, as aforesaid, but by the extreme sharpness of its upward termination ; the etymological acuteness of the architect pointing him to the just conclusion, that an obelisk could not be made too much like a needle. Descending, however, we find one remaining circumstance to notice ; namely, that the shaft bears at mid-height, on every alternate face, a lamp, presenting one towards each of the three public ways that converge to this point. The manner, also, in which these lamps are attached to the shaft is worthy of observation. The sustaining arms exhibit no superfluous length or weight of metal ; no meretriciously entwining ornaments court the eye ; plain as the shaft into which it is thrust, each straight bar stands forth and clutches its charge. All is solidity and simplicity ; so much so, that the structure, properly speaking, possesses the rare merit of not exhibiting a single moulding. Hence its great superiority over works that are dependent upon such adventitious and ill-devised means of decoration.

We trust we have given the reader a tolerably accurate notion of the general features of this piece of composition. Should not the description satisfy or convince him, we refer him to the original ; should that fail, we consign him to his own obtuseness, wishing him " all manner of prosperity, with a little more taste." We, on the other hand, are animated by the hope that an object

of such beauty may not long be a rarity among us; but that, as occasion offers, similar erections may rise in many places to grace our streets. We think, indeed, that we discern one even now about to form the centre of attraction in the vicinity of the church of St. Mary Woolnoth. That such antiquated productions as that church should be brought into a disadvantageous contrast with monuments like these, must be matter of satisfaction to every enlightened critic and artist. Hawksmoor and Wren, and all pupils and masters of their school, have had their day; and the present is not an age for the resuscitation of the architectural superstitions of former years.

For our own part, we do not care how many houses are taken down in prominent public situations, if only we can be assured that it is to make room for granite obelisks, such as that which has formed the subject of our present remarks. Neither can we refrain from admiring the consummate judgment of the designer, who has here so well placed the creation of his immortal genius in contiguity to buildings of moderate architectural pretensions, admirably calculated to serve as a foil to the beauties of his own production; so that on the approach, in either direction, whether by the steeple of Bow Church, the façade of the Post Office, or the varied masses of St. Paul's, the mind of the beholder is not so much prepared for, as surprised by, the climax of art that presents itself to his attention in the configuration of this granite obelisk. We rejoice, too, that citizen discernment is as inflexible as the material by which it is here commemorated; and that the powers that be, having once resolved that any such object will "do well enough," are not likely to revise or reconsider their decision, trembling like vanes before the breezes of a fastidious criticism. Possessed of such an invaluable monument, we are possessed of it for ever; and entertain no doubt that, in its transmission to remotest posterity, it will carry conviction to the minds of all who might otherwise have remained sceptical as to our attainments in art at the present era.

It is too truly observed that many of the finest specimens of architecture in the metropolis are so closely surrounded by buildings, not to say absolutely buried in holes and corners, that no person can obtain that advantageous view of them which their excellences deserve. But it is also stated, with great confidence, by many, that, when we do get the opportunity of placing on an eligible and conspicuous site an erection intended to be magnificent on a large scale, or picturesque on a small one, we are at once at a loss to know what to do with it: our wits will not consort with our opportunities, or our opportunities will not accommodate themselves to our wits; and the forced fecundity of our inventive genius is productive of nothing but some hideous

monstrosity, or some contemptible abortion. But away with all statements so derogatory to the honour of British art and of citizen connoisseurship ! Away with reproaches, which, if at any time they were credible, are henceforth and for ever obsolete ! Let the Cheapside obelisk, with mute eloquence, vanquish the gainsayers, and awe them into a kindred silence. Let the blazing emanations that nightly encircle it dispel their ignorance of those mighty resources for our architectural regeneration which are at the command of the honourable the Commissioners of Pavements and Sewers, whenever they please to call spirits from that nasty deep which to them peculiarly appertaineth.

But why should we further panegyrisse a work whose excellence must be recommended to almost every mind by intuitive conviction ? We forbear: we are dazzled by the contemplation of what is, in truth, a pile of precious stones; or, taken collectively, a huge gem of inestimable worth; respecting which our sole ground of regret is, that it cannot be preserved under more safe custody in Guildhall, to be produced only on the annual return of the ninth of November, and worn as part of the gorgeous insignia of office by all future Lord Mayors of London, who shall be in favour of its preservation.

July, 1838.

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#### REVIEWS.

ART. I. *Architectural Illustrations and Account of the Temple Church, London.* By Robert William Billings, Associate of the Institute of British Architects. London, 1838.

MR. BILLINGS informs us that, though many picturesque views of the Temple Church have appeared at different times, there are none which convey a connected idea of it in an architectural sense. The present work is an attempt to supply this deficiency; and Mr. Billings has succeeded in a manner which must be alike gratifying to himself and to every architect. The engravings are on a sufficiently large scale to be useful in practice; and all the details are most clearly and definitely given. It is for want of details of this kind, Mr. Billings observes, that so small a number of edifices have been erected in the same style. He only refers to one, viz. the Roman Catholic Chapel of St. Mary, St. John's Wood, erected from the designs of J. J. Scoles, Esq., architect; and this, he says, exhibits internally "one of the most successful adaptations of the architecture now illustrated."

In a literary point of view, the most remarkable part of this volume is an article by Edward Clarkson, Esq., entitled "An Essay on the Symbolic Evidences of the Temple Church." Mr.

Clarkson discusses the question, "Were the Templars gnostic idolators, as alleged?" and the following extract will show the conclusion at which he arrives: —

"The Temple Church, built and instituted by the Templars in London, was a copy (varied, doubtless, in many of its details) from the temple at Jerusalem, of which the purpose of their institution as a military order gave them the possession and guardianship. Of that temple at Jerusalem, the preceding temple of Solomon supplied, beyond any question, the archetypal, if not the material, model. Just so, the Mosaic Ark in the wilderness furnished the ideal, and in a great measure the architectural, model. The close affinity between the masonic forms and ideal associations there adopted, and the masonic forms and ideal associations connected with the pyramids, has been repeatedly urged, and, as we think, demonstrated. It has been maintained, or proved, by the writer of this paper, in lectures on the great pyramid, published during 1825 and 1826, in the *Classical Journal*, and it has been latterly corroborated and proved by a work on the same subject by the defunct and gifted author O'Brien, in a work *On the Round Towers of Ireland*. The leading proposition in those lectures maintained that the great pyramid was the first great lodge of ancient Egyptian freemasonry. All the forms and measures adopted there, both externally and internally, were symbolical of certain dogmas, religious, social, scientific, or philosophical; that is, freemasonry. Freemasonry remains the same, whether in a Pagan or a Christian garb; whether at Eleusis, at Memphis, at Crotona, in the caves of Zoroaster, or in the secret chambers and galleries of the Christian temple at Jerusalem.

"Its doctrines, its rites, and its initiations, corrupted, varied, or improved by the various nations to which its missionaries conveyed them, contained the traditions, the predictions, and the means of instruction of the first patriarchal church, which united all the families and languages of mankind. The fragments of that compact religious framework, though broken up and rendered dissimilar by the various channels through which they passed in their transfer, exhibit every where the most startling and irresistible evidences of their original singleness, and of their family identity. The same masonic evidences of a single patriarchal church are to be found at the same time in different hemispheres, and on the opposite sides of the globe. They are to be found equally at Stonehenge, and at the recently discovered Mexican city of Palenque.

"This being fairly inferred, we have a right to infer, also, that the new temple established on the capture of Jerusalem by the Crusaders would exhibit the masonic forms and signs and symbols peculiar to religious freemasonry in all parts of the world; but especially peculiar to the Temple of Solomon, the site of which it occupied, and which it superseded or succeeded. That structure is destroyed, and with it those symbolic evidences of religious freemasonry are obliterated; but, fortunately, we have under our own eye, in London, a shoot from the parent stem; a daughter of the Eastern mother, a transcript of the same architectural model to be equally found in the Mosaic Ark, and in the Temple of Solomon. Does any one doubt that every measure, form, and symbol in the ark, and in the ancient temple, conveyed, like the symbols of freemasonry, moral, social, and religious meanings? No scholar, and no architect, will doubt it. Certainly, no classical individual, who is aware of the fact, that all the great temples in Asia Minor and in Egypt, especially those to which theatres for the dramatic shows of the mysteries were attached, were built, or superintended, by a recognised body of masons as well as freemasons, called the Dionysian brethren. If, therefore, every sign, symbol, or measurement in the ancient ark and temple spoke a clear language to the instructed adept or brother, though not to the uninitiated profane, it is obvious, provided our logic be correct, that we must seek in the architectural copy, that is in the Temple Church in London, for symbols, signs, and measurements, expressive of the doctrines, social, moral, or re-

ligious, of the Knights Templars, whose masonic lineage has been briefly, though, we think, undeniably, traced to its masonic origin, in the first Egyptian great lodge. *That* position we have now to investigate. *That* truth it is our firm conviction, by an appeal to tangible evidences, open to every one's eye, and palpable to every one's touch, we shall be able to manifest and prove."

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**ART. II. *A Treatise on Roads; wherein the Principles on which Roads should be made are explained and illustrated by the Plans, Specifications, and Contracts made use of by Thomas Telford, Esq., on the Holyhead Road. By the Right Hon. Sir Henry Parnell, Bart., Honorary Member of the Institute of Civil Engineers.*** 8vo, second edition. London, 1838.

THE deservedly high character of this work renders it altogether unnecessary for us to say anything in its commendation. It is, indeed, an excellent work, whether we consider it with reference to its principles, or its practical directions, clearly and elegantly illustrated as they are by beautiful engravings. Every country gentleman, who wishes to know how to construct roads himself, or understand when they have been properly constructed for him by others, ought to study this book. As a tribute to Sir Henry Parnell, we cannot avoid making the following quotation from the preface. It is an extract from the life of Thomas Telford, Esq., written by himself: —

"It has already been stated that, on Lord Oriel's retiring from public life, Sir Henry Parnell, Member of Parliament for Queen's County, in Ireland, and since for Dundee, in Scotland, was not only the principal instrument in carrying Holyhead Road bills through Parliament, but has ever since continued to be the most efficient of the commissioners. Fully impressed with the importance of rendering the communication between London and Dublin perfect, he has, during the last twenty years, applied himself to this subject, for effecting which both talents and management have been required, as well as perseverance.

"1st, He had to convince government of the advantages to be derived from the scheme, and induce them to furnish the means of defraying the expense; 2d, To procure the consent of all the numerous, and in some instances turbulent, bodies of local trustees, upon an extensive line of road; and, 3d, To arrange the sea communication between Holyhead and Dublin; for which purpose the harbour of Holyhead was improved, in a manner which has rendered it serviceable, as a harbour of refuge, far beyond the immediate purpose of protection of the packets; and a harbour has also been made at Howth, northward of the city of Dublin. All this he has effectually accomplished; and, by extending his services beyond the usual duties of a parliamentary commissioner, and therein devoting much of his time to the personal inspection of practical operations, he has acquired so perfect a knowledge of road-making, in all its branches, as has enabled him to produce the most valuable treatise which has appeared in England on the history, principles, and practice of that species of national improvement."

## MISCELLANEOUS INTELLIGENCE.

## ART. I. Institute of British Architects.

MAY 21. 1838. — H. E. Kendall in the chair.

*Elected.* G. E. Laing, as Associate ; J. G. Wilkinson, author of various works on Egypt, as Honorary Fellow ; Signor Valadier, and Signor Canina, Rome, and Herr Hessemer, Frankfort, as Honorary and Corresponding Members.

*Presented.* Antichi Vasi dipinti della Collezione Feoli, descritti da Secondiano Campanari : 8vo ; Rome. Original Drawings, by P. Cortona, J. B. Corneille, &c., from Sir J. D. Stewart. Walker's Examples of Gothic Architecture, Part 3. : folio. An Eight-day Clock with Oak Case, from B. Vulliamy, Esq. Philosophical Transactions for 1837. Rapport sur les Pénitenciers des E'tats-Unis, par MM. Blouet. Twenty Pounds for the Travelling Fund, from H. Rhodes, Esq.

Mr. Renton's paper on Iron was continued : its forms of Section, and comparative Value.

The following letter, dated Athens, March 27. 1838, was lately received by T. L. Donaldson, Esq., secretary to the Institute of British Architects, from A. Rizzo Rangabé, secretary to the Archaeological Society of Athens.

“ Greece cannot behold, without lively interest, that she continues to be the object of meditation and research to the learned of Europe ; though still weak, and, only beginning to enter into a state of regeneration, she cannot unite her efforts to those of civilised nations for the advancement of science and art ; she has, at least, the slight consolation of contributing to that end by the remembrance of her past splendour ; and of presenting, in her scattered ruins and mutilated monuments, models of taste always worthy of imitation.

“ She is well aware how much she owes to these remains of ancient art, and she feels a religious respect for them. From them burst the first electric spark which animated the Greeks to emulate the memory of their ancestors, and led them on to battle ; and it is to them, also, by their contributing to excite in our behalf the philanthropic feelings of foreign nations, that we attribute in a great measure the generous assistance, which we have received from strangers. After these obligations, you will not, like so many others, accuse us of exaggerated veneration towards these reliques. Though we are jealous of them, and, considering them as so many palladiums of our independence and of our nationality, we will not allow them to be carried away from the places they were intended to fill ; and we see, on the contrary, with regret, that more than one fine monument cannot be restored, because its decorations have been carried away and dispersed in the museums of foreign countries. There are many skillful architects and learned men in the Institute of British Architects, who are very capable of judging how different would be the artistical and local interest of these statues and reliefs, if they occupied the places for which they were destined by the master spirits who executed them, instead of being coldly arranged in rooms of so modern a taste, that they, as well as the wintry regions of the North, appear to protest against the antique forms and disposition of the statues.

“ But, though we are proud of our treasures of antiquity, we are not selfish with respect to them. On the contrary, Government has ordered their periodical publication ; and this is done in the *Archæological Journal*, of which I take the liberty of sending you a copy of the three first numbers, to place in the library of the Society. These essays will no doubt fall far short of the expectations of Archæologists ; but let it be remembered that we are still without the books most necessary for the study of archæology in Greece. It is but justice to observe, farther, that this journal only professes to make the public acquainted with the antiquities which are discovered by excavations made at the expense of the government, or of individuals. We

have only to remove the surface of modern Greece to discover ancient Greece ; and it was thought that it would not be uninteresting to give as much publicity as possible to the discoveries made from day to day. A private society has added its efforts to that of the government. You will find the by-laws added to the copies of the *Archæological Journal*. The members of this Society wish to know if you, and some of the members of the Society of which you are Secretary, will allow your names to be enrolled in the number of its honorary members, and that you will be so kind as to send me the names of these gentlemen, that their diplomas may be prepared.

" M. Gropius is the only one remaining of your former acquaintances at Athens : he begs me to send his compliments and respects to you. Lusieri is no more ; and I have just heard that M. Fauvel, whom I did not know personally, has closed his laborious life at Smyrna. Athens is now very different in appearance to what it was when you knew it. It is no longer an Oriental bazaar, erected with the fragments of marbles of ancient monuments, but an European city, rising by the side of the Hellenic city ; so much has been done to restore and display the ancient monuments in the midst of the modern buildings : but if you come you will never be a stranger here ; Athens is the city of men of taste and science. With best thanks for the invaluable wishes you express for my country, whose prosperity, alas ! is in a great measure as yet but a wish, I have the honour to remain your very humble and obedient servant, — A. Rizzo Rangabé, Counsellor to the Ministry of Public Instruction, Secretary to the Archæological Society. Athens, March 27. 1838."

*The Archæological Society of Athens.* — The proceedings of the first meeting of this body, held on the 10th of May, 1837, in the Acropolis, have been published, and contain some very interesting particulars. M. J. Rizzo, counsellor of state, was in the chair ; and M. A. Rizzo Rangabé opened the business by an address, of which the following is an abstract : —

" Assembled under these gigantic monuments of Hellenic art, which strike us with astonishment even in their ruined state, we cannot but be moved with feelings of emotion caused by the thought of their destruction, which recalls the downfall of our nation and the days of our unhappy slavery. On the other hand, we may well be proud to allude to our religious respect for these noble remains of antiquity, and to the care which the government bestows upon their preservation and restoration, which proceeds successfully under our eyes, and which seems to connect the present period with that of Pericles and Cimon. Can there be a better proof of our political regeneration ? As long as our country was debased in slavery, we were forgotten by all, and dead to history ; the powerful of the world divided our spoils ; a firman of our conquerors was sufficient to despoil this venerable Parthenon now before us. Greece was not consulted as to the destiny of her monuments, and the Athenian was obliged to use the sacrilegious saw upon some of the immortal works of Phidias, destined to embellish foreign museums. But we are now risen from our prostrate condition ; we are an independent nation ; and our government has turned its attention to the preservation of those treasures of ancient art, which still remain to us ; and its solicitude in this respect has been crowned by the happiest results. The discovery by Dr. Ross of the temple of Victory without wings has led to its almost complete reconstruction at the entrance of our Acropolis. We now also owe to MM. Pittáki the restoration of the Propylea, no longer encumbered by the barbarous buildings of our despots. A vast number of inscriptions, among which are those relating to the arsenal of the Piræus, the Long Walls, and the tributary cities of Athens, have been found by these two gentlemen. But these excavations, repairs, and reconstructions create expenses, and to a considerable amount. The government has done much, but cannot do all ; it therefore behoves us to contribute all we can to extend and accelerate these archæological labours ; such is the aim of our Society. What friend of the name, the glory, and literature of ancient Greece will

withhold his support? Shall we flatter ourselves in vain that the antiquarians of Europe, animated by Philhellenic love, will lend us their counsels and co-operation? In fine, shall it be a vain illusion, if we hope that we may one day see, through the efforts of this Society, those masterpieces of art resume their original destination, instead of continuing in their present inappropriate position in the cold regions of the North?"

The election of the following members of the committee then took place:— J. Rizos Néroulos, as President; J. Coconis, Vice-President; A. Rizzo Rangabé, Secretary; A. Compatis, Treasurer; and Messrs. Pittáki, Gropius, Epitis, and Photilas, as ordinary members.

The following are the rules of the Association:—

1. That the name be the "Archæological Society," and its residence Athens.
2. The object, that of contributing to the discovery, re-erection, and restoration of the antiquities of Greece.
3. Every person, whether residing in Greece or abroad\*, is eligible as a member.
4. The minimum annual contribution of each member to be fifteen drachms (twelve shillings); but further contributions in money, books, or other objects connected with the purposes of the Society, will be duly acknowledged. The Society names also as honorary members those foreigners who are distinguished for their archæological attainments. The members have a diploma with their names inscribed.
5. The members, who may be at Athens, will meet once a year in the Acropolis, to choose the officers and committee.
6. The functions of the committee are, to determine, in conjunction with the conservator of the museum, the excavations and restorations which are to be undertaken. No works are to be done without the cooperation and consent of that functionary, who also may be requested by the committee to undertake some of the excavations; for which purpose he will be furnished with the necessary funds; and he will afterwards account for the manner in which they have been applied. The committee will authorise the execution of works, which have been proposed and approved. They will also cause a scientific examination to be made of the antiquities which may be found, and will be in communication with the archæological commission named by the government, and which has the privilege of publication.
7. Relates to the administration of the funds.
8. Directs the yearly publication of a report of the labours of the committee to be distributed among the members.
9. Provides that all objects found are to become the property of the national museum, but they are to be inscribed as having been discovered at the expense of the Society.

The government having approved of the Institution, published the following ordonnance, with the view to encourage it:—

That the conservator of the Central Museum shall be in communication with the committee of the Society with respect to the archæological proceedings of this latter, and shall undertake the direction of some of its works when invited so to do, and its public duties allow.

The archæological commission will assist the Society with its advice, whether directly or indirectly, through the medium of the conservator of the museum, whenever requested.

The members of the Society have free admission to the archæological library. One hundred copies of the *Archæological Journal* shall be given gratuitously to the Society for distribution among the members.

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\* The Archæological Society being now in communication with the Royal Institute of British Architects, the Secretaries of this latter body will receive the subscriptions of such of our countrymen as feel disposed to promote the Archæological Society, and transmit the amount to Athens.

The annual report of the proceedings of the Society shall be printed without charge at the royal press.

The names of those who have continued to be members during three years shall be inscribed on a marble column at the entrance of the museum.

The Society have published, in the months of October, November, and December of last year, numbers of their *Transactions*, which reflect great credit upon their judgment and skill. The following summary of their contents was read at the ordinary meeting of the Institute of British Architects, on the 9th of July, having been translated by Col. W. M. Leake, from the original in modern Greek.

The three numbers of the *Transactions of the Archaeological Society of Athens*, reflect great credit on this infant Society. The first contains a brief account of all the proceedings, which have occurred in furtherance of the intentions of the government of Greece in favour of the antiquities of Athens. Excavations were commenced on the 22d of April, 1833. On that and a few following days, six sculptures and three inscriptions were found. Among them was a piece of the eastern frieze of the Parthenon: it stood between Nos. 18. and 19. of the British Museum. Another contained a portion of a figure which is continued in No. 20. All the others found about this time belonged to the northern side: one, at the foot of the north-east angle, appears to have been the second of the north side. It represents men in long garments leading oxen, like those of the southern side (57—62. B. M.), and appears to have been the second stone of the north frieze; not the first, because, according to Carrey, this had, at the eastern end, two women following those in 21. B. M. Another, according to the drawing of Carrey, followed 22. B. M.: upon it were three men clothed, and bearing hydriæ on their shoulders, followed by an *αὐλαγής*, partly hid by a man stooping to lift a hydria (this Visconti mistook for a boy driving a hog). A third portion of the frieze had four old men on foot in long garments; who, according to Carrey, followed four *αὐλαγραῖ* and four *λυρισταῖ*. Four other portions of the frieze contain chariots like those of the southern side (53—56. B. M.): one is a quadriga; the others doubtful. Nos. 24, 25, 35, 36. of the British Museum complete, with this new one, the five chariots of Carrey. Of the inscriptions found about this time was that important one relating to Andoleon, King of Pæonia. At the end of 1833, 500 fragments or monuments, more or less complete, had been collected; and among them the inscription relating to the Long Walls, the existence of which is supposed to have been known to M. Pittáki, as early as 1829. (See *Soc. Archeol. di Roma, Bulletino di Marzo*, 1835.) In the same year, bounds were marked off around the Acropolis for future diggings. In 1834, an excavation was made in a garden to the north of the Peiræus; and many inscribed sepulchral stones and sculptures were found. In September, 1834, 72,000 drachms \* were voted for works to be executed between that time and 1837, the main object of which was to be the rebuilding (*ανέγρους*) of the Parthenon, and the restoration of the Acropolis to the peaceful Muses (*εἰρηνικαὶ Μούσαι*). The modern fortifications were to be destroyed; the citadel was to cease to be a place of arms; Ross and Klentze were to direct the works. About this time, the *ἀγιον βῆμα*, which had been built at the eastern end of the Theseum, when it was converted into a church, was removed; a second iron ring was placed on its north-west column (the first had been placed by the Society of Philomusi of Athens, soon after the column had been struck with lightning in 1820); the fifth column of the southern side was strengthened in the same manner; the temple was covered with Maltese stone, and made useful for the reception of antiquities. Towards the end of April, 1835, the Acropolis having been evacuated as a citadel; an excavation was begun on the north-west side of the Parthenon, and carried in some parts 20 ft. and more below the third or bottom step of the stylobate; frusta of columns of nearly the same size as the

\* About 3000*l.*; but not more than half this sum has yet been expended.

Parthenon were found\*; many fragments of painted terra cotta, among them a Medusa's head (of this a coloured lithograph is given in No. 3.), parts of the *γείσωμα* of some large building (also lithographed); and many small statues and fragments which had belonged, probably, to a temple standing on or near the site of the Parthenon. On the western side, near the north-west angle, the natural rock was found at a small distance below the surface; at the angle was found the portion of the frieze, with the men on foot, as before mentioned. The excavations at the Propylaea produced the Temple of Victory almost entire, with the exception of the four portions of the frieze in the British Museum. In October, 1835, Mr. Ross resigned his office, and M. Pittáki was appointed.

Between October, 1835, and February, 1836, the northern wing of the Propylaea was opened and cleared of its modern masonry, and the same was done to the great portico of the Propylaea. Further clearings around the Temple of Victory displayed steps extending from its basement to the pedestal of Agrippa; but whether these steps extended lower down the hill, has not yet been determined. About this time, some excavations to the north-east of Port Cantharus brought to light twelve sculptures, some sepulchral inscriptions, and 120 vases. In 1837, the road from the Propylaea to the Parthenon, cut obliquely in the rock, was found, with many sculptured fragments, and some inscriptions, chiefly of Roman time. The clearing of the Erechtheum was now begun. Almost all the *πλίνθοι* of the northern wall were found, and seven pieces of the *γείσον*. These were rebuilt, with a portion of new work. The eastern side was in like manner cleared; and here, also, some new work was required to repair damage done by the Christians in making an *ἄγιον βῆμα*, when they converted the temple into a church. On all the new work was inscribed "*'Εκτίσθη, 1837.*" The southern wall was also rebuilt; and here was found, among other pieces of sculpture, the fifth Caryatis (the sixth is in the British Museum), which has erroneously been supposed to be in the Vatican. It is broken into many pieces, some of which have not yet been found. Some repairs were made to the portico of Caryatides, and the Caryatis which was thrown down in the siege was replaced. On the western side, two of the four columns have been re-erected, and have been united by an epistylium. A third has been put together, and the wall has been strengthened with temporary work, until its remains are found. The floor of the temple has been partly cleared, and sufficiently to show that Stuart was mistaken in some of his opinions concerning it. The heats of 1837 interrupted this work. To the north of the Theseum, the foundations of a large building were found, with an inscription, alluding to some work of the sculptor Eubulides. Near the gate of the new Agora, on the south-west side, were discovered, considerably below the present surface, remains of the walls of some large building, forming a right angle.

The second number of the Journal contains a summary of the observations of M. Pittáki, on a journey in the Morea; in which I do not find any thing of importance. The remaining part of this Number, and all the third, is occupied with inscriptions given lithographically, as well as in the cursive character, with notes. This part of the work is highly creditable both to the artist and the editor, M. Rangabé. — *W. M. L.* June 9, 1838.

A letter of the 21st of May informs me that the architects were then engaged in examining the *entasis* of the stylobate. It appears that the columns not only stood inclined inwards, but that they stood upon a *convex* platform, and that the architecture had a similar curve, though probably not on the upper face; this, however, it seems, had not yet been determined. — *W. M. L.* June 22.

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\* It would be desirable to know whether they were of the partially fluted kind, of which frusta are seen in the northern wall of the Acropolis, and which are nearly of the same diameter as those of the Parthenon.

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